Product Cost Controlling (CO-PC)

ADDON.IDESCOPC

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SAP™

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Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Typographic Conventions

Type Style	Description
Example text	Words or characters that appear on the screen. These include field names, screen titles, pushbuttons as well as menu names, paths and options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, titles of graphics and tables
EXAMPLE TEXT	Names of elements in the system. These include report names, program names, transaction codes, table names, and individual key words of a programming language, when surrounded by body text, for example, SELECT and INCLUDE.
`Example text`	Screen output. This includes file and directory names and their paths, messages, names of variables and parameters, source code as well as names of installation, upgrade and database tools.
`Example text`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example text>`	Variable user entry. Pointed brackets indicate that you replace these words and characters with appropriate entries.
`EXAMPLE TEXT`	Keys on the keyboard, for example, function keys (such as `F2`) or the `ENTER` key

Contents

Product Cost Controlling (CO-PC)

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Product Cost Planning, Costing Run, Primary Cost Component Split

Purpose

Product Cost Planning is used to plan costs and to price materials. It determines the cost of goods manufactured (COGM) and cost of sales (COS) for each product unit.

Material cost estimates can be created at various times during a fiscal year.

- At the start of a fiscal year or accounting period
- During the fiscal year
- Before preparing the financial statements

The purpose of the costing varies according to the time at which it is performed. The standard system contains costing variants:

- for Standard Cost Estimates
- for Modified Standard Cost Estimates
- for Actual Costing

The IDES System contains additional costing variants:

- for inventory costing
- cost estimates that also reflect sales and administration costs
- for standard cost estimates, the costing variant DPC1
- for modified standard cost estimates, the costing variant DPC2
- for current cost estimates, the costing variant DPC3

The following process flow shows how multiple materials can be costed in a single costing run.

Process Flow

You can find the data for this process under ? [Page 9].

1. Checking Material Master Records [Page 10]
2. Checking the Bill of Materials [Page 12]
3. Checking Routings [Page 13]
4. Processing the Costing Run [Page 14]

Data Used During This Process

Field	Data
Material	P-100
Company code	1000
Plant	1000
Costing variant	ZPC1

Checking the Material Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Display → Display Current*
Transaction Code	MM03

2. Enter the following data:

Field	Data
Material	P-100

3. Choose *Select view(s)*.
4. In the *Select View(s)* dialog box, enter the following data:

Field	Data
MRP 2	Select
Accounting 1	Select
Costing 1	Select

5. Choose ✔.
6. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1000
Org. levels/profiles only on request	Select

7. Choose ✔.

   On the *Display Material P-100 (Finished Product)* screen, the *MRP 2* tab page appears.

8. Choose ✔.
9. On the *Accounting 1* tab page, enter the following data:

Field	Data
Valuation class	7920
Price control	S (for standard price)

10. Choose the *Costing 1* tab page.
11. Check the following entries:

Field	Data
With quantity structure	Select
Material origin	Select
Overhead group	SAP10

12. Choose ✓.
13. In the *Last data screen reached* dialog box, choose *Yes*.
14. Choose ← until the overview tree appears.

Checking the Bill of Materials

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Master Data → Bills of Material → Bill of Material → Material BOM → Display*
Transaction Code	CS03

2. Enter the following data:

Field	**Data**
Material	P-100
Plant	1000
BOM Usage	1

3. Choose .
4. On the *Display Material BOM: General Item Overview* screen, choose *Header*.
5. In the *Extras: Header Information* dialog box, enter the following data:

Field	**Data**
BOM Usage	1

6. Choose *Close*.
7. Choose .
8. Choose .
9. Select the *Status/Longtext* tab page.
10. Choose to check up to the last item that *Costing relevancy* has been selected for all items of category L or R.
11. Choose until the overview tree appears.

Checking the Routing

1. Call up the transaction as follows:

Menu Path	From the *Master Data* node, choose *Routings* → *Routings* → *Standard Routings* → *Display*
Transaction Code	CA03

2. Enter the following data:

Field	Data
Material	P-100
Plant	1000

3. Choose .
4. Choose .
5. Check the following entry:

Field	Data
Status	4

6. Choose *Operations*.
7. Choose .
8. Choose *Details* → *Operation.*
9. In the *Display Routing: Operation Details* screen check in the *General data* fields using the *(Next operation)* function whether the indicator *Costing relevancy* has been set for all operations until you have reached the last operation.
10. Choose until the overview tree appears.

Processing the Costing Run

Use

You process a costing run through the flow steps Create costing run, Selection of materials, Structure explosion, Costing, Analysis, Marking and Release.

Procedure

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Product Cost Planning → Material Costing → Edit Costing Run*
Transaction Code	CK40N

2. Choose .
3. In the *Create Costing Run* screen, enter the following data:

Field	**Data**
Costing run, 1. field	Name of the costing run (user-defined)
Costing run, 2. field	Name of the costing run (user-defined)
Costing run date	Today`s date
Costing variant	ZPC1
Costing version	01
Company code	1000

4. Choose and .
5. Check the following entries in the *Dates* tab page and change them if necessary:

Field	**Data**
Costing date from	Today`s date
Costing date to	Last day of the current fiscal year
Qty structure date	Today`s date
Valuation date	Today`s date

6. Choose and .
7. In the *Create cost estimate* section choose *Selection* → .
8. Enter the following data:

Field	**Data**
Material	P-100
Plant	1000
Background processing	Deselect

9. Choose .
10. Choose .
11. In the *Create cost estimate* section choose *Selection* → .
12. Choose .

    A green traffic light appears in the *Selection* line under *Status*. One material has been selected. This is quite correct.

13. In the *Create cost estimate* section choose *Structure Explosion* → .
14. Enter the following data:

Field	Data
Background processing	Deselect

15. Choose .
16. Choose .
17. In the *Create cost estimate* section choose *Structure Explosion* → .
18. Choose .

    A green traffic light appears in the *Structure Explosion* line under *Status*. 20 materials have been determined, none of which contains errors.

19. In the *Create cost estimate* section choose *Costing* → .
20. Enter the following data:

Field	Data
Background processing	Deselect

21. Choose .
22. Choose .
23. In the *Create cost estimate* section choose *Costing* → .

    A green traffic light appears in the *Costing* line under *Status*. 20 materials are costed, none of which contains errors. All of the related costings are carried out.

24. In the *Costing results* section choose .
25. Choose *Materials Overview*.
26. Select the line for Material *P-100*, then choose → *Multilevel BOM*.

    You will see the costing structure.

27. Choose .
28. Select the line for material *100-100* and choose → *Cost Comps.*
29. Choose *Settings* → *Type of Cost Component Split*.
30. In the *Type of Cost Component Split* dialog box select *Auxiliary cost component split* and choose .

The costs of goods manufactured are now displayed in the primary cost component split.

31. Choose .

Allow Marking

Marking can only be allowed once in a given period. Providing no release has yet occurred you can reset the marking allowance. However, you should note this cancels all marked prices.

If marking is not yet allowed (locked padlock symbol) continue with step 36.

If marking is already allowed (the padlock looks like this), reset it as set out below:

32. In the section *Create cost estimate* choose *Marking* → .
33. Select the line for company code *1000*.
34. Choose .
35. Choose .
36. In the section *Create cost estimate* choose *Marking* → .
37. Select the first line for company code *1000* by double-clicking.
38. In the *Permitted standard cost estimate variant* dialog box, enter the following data:

Field	Data
Costing variant	ZPC1

39. Choose .

The system confirms that the marking allowance has been issued.

You can repeat the marking as often as required, until the standard costing has been released.

40. Choose .
41. In the *Create cost estimate* section choose *Marking* → .
42. In the *Price Update: Mark Standard Price* screen, enter the following data:

Field	Data
Background processing	Deselect
Test run	Deselect

43. Choose .
44. Choose .
45. In the section *Create cost estimate* section choose *Marking* → .

A green traffic light appears in the *Marking* line under *Status*. 20 materials have been marked, none of which contains errors.

The standard cost estimate of a material can only be released once in a given period.

46. In the *Create cost estimate* section choose *Release* → .
47. Enter the following data:

Field	Data
Test run	Select
Background processing	Deselect

By selecting *Test run*, you ensure that the system only simulates the release of the standard cost estimate. If you do not select this field, the costed price is entered in the material master under the *Costing 2* view.

48. Choose .
49. Choose .
50. In the *Create cost estimate* section choose *Release* → .

The procedure described in this scenario differs from the standard in that the marking and the release are executed in the same period.

To ensure costing accuracy, the standard system assumes that the *Costing date from* is the first day of the next period. This means that the marking is made in the current period, and the release in the next period.

51. Choose until the overview tree appears.

Product Cost Planning with Multi-level Unit Costing

Purpose

The multi-level unit costing is a costing method you can use to carry out the following work centrally:

- Maintain reference and simulation costing
- Maintain product costing without quantity structure
- Copy product costing with quantity structure to unit costing

In the following process you use a multi-level unit costing to change both a product costing with quantity structure and a reference and simulation costing.

Process Flow

You can find the data for this process under ? [Ext.].

1. Creating a Worklist [Page 19]
2. Displaying a Product Costing with Quantity Structure [Page 21]
3. Copying a Product Costing with Quantity Structure [Page 22]
4. Processing the Base Planning Object [Page 24]
5. Cost Analysis [Page 25]

Creating the Worklist

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Product Cost Planning → Reference and Simulation Costing → Edit Base Planning Object - Multi-level*
Transaction Code	CKUC

2. In the *Set controlling area* dialog box, enter the following data:

Field	Data
Controlling area	1000

3. Choose ✔.

You should also refer to the overview screen for the multi-level unit costing [Ext.]

4. Position your cursor on the screen edge (in the middle of the screen) then holding down the left mouse button drag the left screen as far as the *Resource* column.
5. Choose *Worklists on*.

   On the right side of the screen you can see 3 tab pages that display automatically generated worklists. The left tab page contains your user name under which you initially create a personal worklist.

6. Select *Material cost estimate* in the worklist and using the right mouse button call up a window.
7. Choose *Select material cost estimate*.
8. In the *Selection of material cost estimates* dialog box, enter the following data:

Field	Data
Material number	P-100
With quantity structure	Select
Without quantity structure	Deselect

9. Choose the execute icon twice.
10. In the dialog box select the line with the following data: *Material P-100, Plant 1000, Costing variant PPC1*, *Status KA* and *Valid from 1.11.1999*.
11. Choose ✔.
12. Select *Base planning object* in the worklist and choose *Select base planning object* using the right mouse button as described above.
13. In the *Selection: base planning objects* dialog box, enter the following data:

Field	Data
Base planning object	P-100

14. Choose .

    A base planning object already created for pump GG Standard 150-200, which the IDES company plans to introduce shortly is entered in your worklist.

    You then create the internal activity *Machine hours* in the worklist.

15. Select *Internal Activity* in the worklist and choose *Select internal activity* using the right mouse button.
16. In the dialog box (*1*), *Restrictions* tab page, enter the following data:

Field	Data
Cost center	4220
Activity type	1420

17. Choose .
18. Position your cursor on the line *1999 Pumps Production machine hours*, then choose .

    The activity type 1420 machine hours which is provided by the cost center 4220 production pumps and contains a price is automatically placed in your worklist.

19. Select *Process* in the worklist and choose *Select process* using the right mouse button.
20. Choose the *Business process* tab page.
21. Enter the following data:

Field	Data
Business process	300900
Language key	EN

22. Choose .
23. Select the line having the business process *300900*, then choose .

    The process *Work scheduling* is likewise placed in your worklist.

24. Choose to save the worklist.

    The system displays the message *Worklist was saved.*

    Consequently the worklist is retained for you to use for future processing.

25. Remain on this screen.

Displaying a Product Costing with Quantity Structure

1. Select the line *Pump PRECISION 100* in the worklist under *Material cost estimate* and drag this by keeping the left mouse button depressed across to the *Costing structure* on the left of the screen.

   The *Transfer/Copy Material Cost Estimate* dialog box appears.

2. To display the cost estimate, select *Transfer cost estimate as original*.

   However, it is now no longer possible for you to change or adjust the cost estimate. The product cost planning selected is inserted in the relevant costing structure.

3. Choose *Copy.*

4. In the costing structure double-click on *Pump PRECISION 100*.

   You see detailed information on the selected cost estimate in the upper right-hand side of the screen.

   The *History* tab page details the user who created the cost estimate, and the remaining tab pages contain additional detailed information.

5. To display the itemization or cost components choose or respectively.

6. You have the option in the left-hand side of the screen of choosing → *Show all items*.

   All items for costing structure *Pump PRECISION 100* are now displayed.

7. In the menu bar choose .

   In the *Symbol legends* dialog box you can ascertain the meaning of the respective icons or items.

8. Choose .

9. In the costing structure under *Pump PRECISION 100* double-click on *Spiral casing GG*.

   You receive detailed information on the spiral casing.

   On checking the cost estimate for the *Pump PRECISION 100* you establish that several items are missing or outdated.

   To change this cost estimate, next transfer the product costing with quantity structure as a copy from the worklist to the costing structure.

10. Remain on this screen.

Copying a Product Costing with Quantity Structure

11. Choose *Worklists on* if required.
12. Select the line *Pump PRECISION 100* in the worklist under *Material cost estimate* and drag this by keeping the left mouse button depressed across to the *Costing structure* on the left of the screen.

    The *Transfer/Copy Material Cost Estimate* dialog box appears.
13. Enter the following data:

Field	Data
Copy cost est. acc. to	Select
Costing variant	SIM1
Costing version	10

14. Choose *Copy.*

    If you want to repeat the example several times choose a different version number.
15. On the left side of the screen double-click on *Pump PRECISION 100*.

    All items for costing structure *Pump PRECISION 100* are now displayed.
16. Choose .

    Through the copy the material cost estimate with quantity structure in the worklist (*Automatic cost estimate*) has become a unit costing (*Unit cost estimate*).

    As the unit cost estimate relates to a particular material, it is also designated product cost planning without quantity structure.
17. Choose .
18. Choose *Spiral casing GG* by double-clicking in the costing structure of *Pump PRECISION 100*.

    In the basic view you can now see the entire work flow and the required material usage for the production of 100 slugs for spiral cases.

    You now implement the process *Work scheduling* before the production process *Slug for spiral casing* and change the price of the raw material needed to manufacture the slug, as you have in the meantime found a more competitive supplier.

    You also need to implement the process step *Work schedule* after the third item.
19. Select the line with item 4, and choose (*Insert line*).
20. Deselect the line with item 5 and select again the line with item 4.
21. Choose .
22. In the dialog box, enter the following data:

Field	Data
Item category	process (manual)
Business process	300900

23. Choose ✔.

    In the costing items basic view the work scheduling process is automatically set in item 4

24. Enter a *3* in the *Quantity* column for this item and choose *Confirm*.

    You would now like to incorporate the cheaper material from the new supplier in the cost estimate.

25. Select field *M* (Material) in line 5 in the column *Category*, then choose the *Possible entries button*.

    In the *Item category* dialog box, you now have the option of entering a variety of items. In addition to an existing base planning object you can for example also choose an internal activity or variable item for the free entry of a costing item.

26. Select *V*, then choose ✔.

27. In the same line enter the following data:

Field	Data
Price-total	9,50

28. Choose *Transfer*.

    The items are automatically transferred to the costing structure on the left-hand side of the screen. In addition these items are to be revaluated.

29. To do this select the line *Pump PRECISION 100* in the costing structure and using the right mouse button select *Revaluate substructure*.

    You now have a new unit costing with the costing variants SIM1 and costing version 10. Both of your changes namely the inclusion of the process work scheduling the cheaper material have been included.

30. Close the costing structure *Pump PRECISION 100*.

    In the following you use a base planning object you have already created as the basis for further calculations.

31. Remain on this screen.

Processing the Base Planning Object

1. In the worklist under *Base planning object* select the line *Pump GG Standard 150-200* and by keeping the left mouse button down drag this across to the *Costing structure* on the left hand side of the screen.
2. Select *Pump GG Standard 150-200* and using the right mouse button choose *Change cost estimate.*

   You see the *Costing items basic view* for the pump on the upper right hand side of the screen. You would like to insert the internal activity machine hours after the 7th item.
3. Select line 8, then choose .
4. Double-click on *Machine hours* in the worklist.
5. Double-click on the field *Resource* in line 8.
6. Enter a 3 in the *Quantity* column for this item.
7. Choose *Transfer*.

   The new structure is adjusted and the cost estimate temporarily saved.
8. Select the line *Pump PRECISION 100* in the costing structure and using the right mouse button select *Revaluate substructure*.

   The base planning object is revaluated.

   In the following the related cost component split or cost structure is discussed.
9. Remain on this screen.

Cost Analysis

1. In the worklist under *Material cost estimate* double-click on *Pump PRECISION 100*.
2. In the *Costs* tab page choose .

   In the upper half of the screen the cost component split of the unit costing of material *P-100* that you have already carried out is displayed.

3. On the left-hand side of the screen choose → *Select layout* → *1 SAP02*.

   You now receive the structure with allocation, material, production, overhead status, process costs and so on. You can likewise display the cost distribution lower level/level/total.

4. Choose until the overview tree appears.
5. In the *Saving edited cost estimates* dialog box, choose *Yes.*

Data Used During This Process

Field	Europe	North America
Company code	1000	3000
Period	Current period	Current period
Fiscal year	Current year	Current year
Cost element	474100	474100
Document type	KR	KR
Vendor	1000	1000
Function area	0100	0100
Function area	0300	0300
Function area	0400	0400
Function area	0500	0500
Substitution rule	ID-COGS	NA-COGS
Ledger	0F	0F
Report Writer library	0F1	0F1
Report Writer library	0F-GUV1	0F-GUV1

Product Cost by Order

Purpose

During order-related production, Cost Object Controlling can provide you with information about a production order that settles its costs to inventory.

Process Flow

You can find the data for this process under ? [Page 28]

Data Used During This Process

Field	Data	Description
Plant	1000	Plant of the model firm
Material	P-100	Pump GG Standard 150-200
Controlling area	1000	Example – controlling area.

Opening the Production Order

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Production Control → Order → Create → With Material*
Transaction Code	CO01

2. Enter the following data:

Field	**Data**
Material	P-100
Production plant	1000
Order type	PP01

3. Choose .
4. Enter the following data:

Field	**Data**
Total quantity	10
Dates/Start	Today`s date
Scheduling/Type	Forwards

5. Choose .
6. Choose .

    The release is executed.

7. Choose .
8. Make a note of the production order number.
9. Choose until the overview tree appears.

Displaying the Cost Analysis of a Production Order

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Order → Information System → Reports for Product Cost by Order → Detailed Reports → For Orders*
Transaction Code	KKBC_ORD

If the *Set Controlling Area* dialog box appears, enter the following data:

Field	**Data**
Controlling area	1000

2. Choose .
3. Enter the following data:

Field	**Data**
Order	Your production order number (predefined)

4. Choose .
5. Select layout *1SAP02*.
6. Choose .

   The *Cost Development* screen appears.

   If you want to display different data, select a different layout.

7. Choose until the overview tree appears.

Processing the Goods Issue for the Production Order

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Production Control → Goods Movements → Goods Issue*
Transaction Code	MB1A

2. Choose *To order...*
3. In the *Reference: Order* dialog box, enter the number of your production order, then choose .
4. On the *Enter Goods Issue: Selection Screen*, select all materials that are to be issued for this order. To ensure that a variance is generated by the goods issue posting, enter a withdrawal of 11 pieces for material component 100-200 instead of the planned 10 pieces.
5. Choose *Adopt + Details*.
6. On the *Enter Goods Issue: New Item XXXX* screen, choose for each of the selected materials

   Confirm any warnings that may appear.

   If the system displays any error messages, check the quantity of the material that you have in stock and change the quantity to be withdrawn accordingly.

   To analyze the costs of this production order, see Displaying the Cost Analysis of the Production Order [Page 30]

7. Choose until the overview tree appears.

Confirming the Production Order

1. Call up the transaction as follows:

Menu Path	*Logistics* → *Production* → *Production control* → *Confirmation* → *Enter* → *For order*
Transaction Code	CO15

2. Enter the following data:

Field	Data
Order	Number of your production order

3. Choose ✅.
4. On the *Confirmation of Production Order Create: Actual data* screen, select *Final conf.*
5. Choose 💾.

   The confirmation is being saved.

6. Choose ⬅ until the overview tree appears.

Calculating Actual Overhead for a Production Order

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Order → Period-End Closing → Single Functions → Overhead → Individual Processing*
Transaction Code	KGI2

2. Enter the following data:

Field	**Data**
Order	Number of your production order
Period	Current period
Fiscal year	Current year
Test run	Deselect

3. Choose .

You receive the basic list for the ACTUAL overhead calculation.

To analyze the costs of this production order, see Displaying the Cost Analysis of the Production Order [Page 30]

4. Choose until the overview tree appears.

Calculating WIP

Use

Before you can determine the variances, you need to establish how much work in process there still is. Hence you first calculate the *work in process* (WIP).

Procedure

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Order → Period-End Closing → Single Functions → Work in Process → Calculate*
Transaction Code	KKAX

2. Enter the following data:

Field	**Data**
Order	Number of your production order
WIP to period	Current period
Fiscal year	Current year
RA version	Select
RA version	0
Test run	Deselect

3. Choose .

   As you have already entered the final confirmation for your production order, no WIP exists for this order.

4. Choose until the overview tree appears.

Calculating and Explaining Variances

1. Call up the transaction as follows:

Menu Path	From the *Single Functions* node, choose *Variances* → *Individual Processing*
Transaction Code	KKS2

2. Enter the following data:

Field	**Data**
Order	Number of your production order
Period	Current period
Fiscal year	Current year
All target cost vsns	Select
Test run	Deselect
Detail list	Select

3. Choose .

   The *Variance Calculation: List* screen appears.

4. Choose .
5. Choose *Input qty variance.*

   The dialog box contains a definition of the term input quantity variance, as well as explaining how it is calculated.

6. Choose .

   You can also check the other entries in the list in the same way.

   It is possible to repeat variance calculations as often as required. If you do this, select *Test run*.

7. Choose until the overview tree appears.

Settling the Production Order

1. Call up the transaction as follows:

Menu Path	From the *Single Functions* node, choose *Settlement* → *Individual Processing*
Transaction Code	K088

2. Enter the following data:

Field	Data
Order	Number of your production order
Settlement period	Current period
Fiscal year	Current year
Processing type	Automatic
Test run	Deselect

3. Choose .

   You receive the basic list for the ACTUAL settlement.

4. Choose until the overview tree appears.

Data Collection for the Information System

Use

Before you are able to analyze data in product drilldown or use summarization or order hierarchies you have to use a transaction to make it available in the information system.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Product Cost by Order* node, choose *Information System* → *Tools* → *Data Collection* → *For Product Drilldown*
Transaction Code	KKRV

2. Enter the following data:

Field	**Data**
Plant	1000
From fiscal year	2000
To fiscal year	Current year
From period	009
To period	Current period
Background processing	Deselect

3. Choose .

   During the formatting messages relating to the data collection are displayed in the status bar.

   You will see all of the technical information in the *Data Collection for Multidimensional Product Cost Controlling* screen.

4. Choose until the overview tree appears.

5. Call up the transaction as follows:

Menu Path	From the *Data Collection* node, choose: *For Order Hierarchy (with Classification)*
Transaction Code	KKRS

6. Enter the following data:

Field	**Data**
Hierarchy	COPC-VAR
Summarization run	Select
From fiscal year	2000
To fiscal year	Current year

From period	009
To period	Current period
Background processing	Deselect

7. Choose .
8. In the dialog box *Summarization run online*, choose *Yes*.

   You see a list of all the summarization nodes.

9. Choose until the overview tree appears.

The Information System for Order-Related Production

Use

The information system for order-related production enables you to select and analyze production orders from various perspectives. In the following you can familiarize yourself with different types of reports (cumulative reports, order selection and order hierarchies).

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Product Cost by Order* node choose *Information System* → *Reports for Product Cost by Order* → *Summarized Analysis* → *With Product Drilldown* → *Variance Analysis* → *Variance Categories* → *Cumulative*
Transaction Code	S_ALR_87013148

2. In the two following dialog boxes choose ✓ each time.
3. Enter the following data:

Field	Data
Plant	1000
From period/year	001.1995
To period/fiscal year	Current period/fiscal year
Target cost version	0

4. Choose .

   The *Execute Drilldown Report Variance Categories: aggregated* screen appears.

   You first want to analyze the variance for an existing material. To do this, proceed as follows:

5. Select *Product group* and open the substructure *00100 Machines*.
6. Double-click on the line *Pumps*, and then material *P-100*.

   In the upper half of the screen you will see the drilldown list of the period values and beneath it the detail list with the key figures for the selected area.

7. Choose until the overview tree appears.
8. In the *Exit Report* dialog box, choose *Yes*.
9. Call up the transaction for order selection as follows:

Menu Path	From the *Reports for Product Cost by Order* node choose *Object List* → *Order Selection*
Transaction Code	S_ALR_87013127

10. Select *Extras* → *Set Controlling Area*.

11. In the dialog box, enter controlling area *1000* and choose ✔.
12. On the *Order Selection* screen, enter the following data:

Field	**Data**
Plant	1000
Material number	P-100
From period	001.1998
To period	Current period

13. Choose .
14. On the *Order Selection: Results List* screen, select the order number of your order, then choose *Goto* → *Detailed analysis* → *Online...*

    The *Planned/Actual Comparison* screen appears.

    In the *Origin* column you will see the material numbers for the raw materials and semi-finished products used in the lines with cost element *400000* or *890000.*
15. Select the first line for cost element *890000* by double-clicking.

    You will see the corresponding actual costs line items.
16. Choose until the overview tree appears.
17. In the dialog box, choose *Yes*.
18. Call up the transaction as follows:

Menu Path	From the *Reports for Product Cost by Order* node choose *Object List* → *Overview of Summarization Hierarchies*
Transaction Code	S_ALR_87013162

19. On the *Display Hierarchy List* screen, select *COPC-VAR*, then choose .
20. To display an overview of the planned costs in comparison to the actual costs, choose .
21. In the dialog box *Layout: choose* select *1SAP02 (Plan/actual comparison)*, then choose .
22. In the dialog box *Change layout* select the *Planned* and *Actual output quantities* in the *Column set.*
23. Select both of these entries, choose and then ✔.

    You will see the planned and actual quantities and can call up additional list screens by choosing .
24. To display an overview of the materials for the material group *metal* in plant *1000* open the substructure *001 Metal* → *1000 Plant Hamburg*
25. Select Material *P-100*, then choose *Goto* → *Single objects.*

    In the *Object list* screen you will see the planned/actual comparison per order.
26. Select your order, then choose .

    You will see the cost element report for the selected order.

27. Choose until the overview tree appears.

Product Cost by Period with Product Cost Collectors

Purpose

In product cost by period the costs are analyzed by period on a product cost collector. The costs incurred as the result of a logistical action are updated on a product cost collector.

In the following process product cost by period is illustrated in connection with the production type repetititve manufacturing. You start by analyzing the product cost collector master data and carry out a preliminary costing.

You then commence producing the production line memory chips, which you confirm at various reporting points. You analyze the costs incurred on the product cost collector.

At the period end you carry out the period-end closing activities for the product cost collector and at the same time analyze the costs.

You can find more information about this process under [Page 43].

Process Flow

You can find the data for this process under [Page 44]

1. Generating the Starting Data for the IDES Process [Page 45]
2. Displaying the Product Cost Collector [Page 46]
3. Preliminary Costing for Product Cost Collectors [Page 48]
4. Backflushing for the First Reporting Point [Page 49]
5. Analyzing the Costs for the Product Cost Collector [Page 51]
6. Backflushing for Scrap for Reporting Point 2 [Page 52]
7. Backflushing for the Second Reporting Point [Page 54]
8. Calculating Overhead Costs [Page 56]
9. Calculating WIP [Page 58]
10. Calculating Variances [Page 60]
11. Settling the Product Cost Collector [Page 61]

Additional Process Information

The product cost collector used in product cost by period is created on the material/plant/production process level, meaning the production process is specified dependent on a controlling level. In this process (product cost by period with the repetitive manufacturing production category) the controlling level determines the characteristics material/plant/production process.

In this process the preliminary costing for the product cost collector is used to

- Valuate confirmed activity quantities in actual,
- Valuate the work in process,
- Valuate the scrap,
- Determine the target costs for the variance analysis.

The following additional information is aimed at IDES users with prior knowledge of Customizing for Cost Object Controlling.

You specify the settings for valuating the product cost collector for both the preliminary costing and the actual confirmations in the valuation variants. You assign these to this using the order type of the product cost collector. To check the settings choose:

Menu Path	*Tools* → *AcceleratedSAP* → *Customizing* → *Edit Project* → Choose *SAP Reference IMG* → *Controlling* → *Product Cost Controlling* → *Cost Object Controlling* → *Product Cost by Period* → *Product Cost Collectors* → *Check Valuation Variants for Product Cost Collectors*.
Transaction Code	OPN2

Data Used During This Process

Field	Europe	North America	Description
Plant	1200	3200	Plant of the model company
Material	C-1113	C-1113	PC component
Material	R-1210	R-1210	Processor chip
Material	C-1230	C-1230	
Production version	0001	0001	Maintained production version
Controlling area	1000	2000	
Origin of scrap	0003	0003	Defective material
Company code	1000	3000	
Reporting point 1	0010	0010	
Reporting point 2	0030	0030	
Activity type	1420	1420	Machine hours
RA version	000	000	

Generating the Starting Data for the IDES Process

Use

To ensure that enough material is available, even if you execute this demo a number of times, you need to generate the necessary data using a CATT.

Procedure

1. Call up the transaction as follows:

Menu Path	*Tools → ABAP Workbench → Test → Test Workbench → CATT*
Transaction Code	SCEM

2. Enter the following data:

Field	**Europe**	**North America**
Test case	ZIDES_STOCKINIT_PC02D	ZIDES_STOCKINIT_PC02E

3. Choose .
4. Enter the following data:

Field	**Europe**	**North America**
Background processing	Select	Select

5. Choose and then .

   In the status bar, you see which transactions are being processed. When the CATT has been executed, the system creates a log confirming whether the run was successful.

6. Choose until the overview tree appears.

Displaying the Product Cost Collector

Use

The following shows you how to display the product cost collector. If there is no product cost collector you will need to create one.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Master Data → Product Cost Collector → Process Product Cost Collector*
Transaction Code	KKF6N

2. Enter the following data:

Field	Europe	North America
Material	C-1112	C-1112
To	C-1113	C-1113
Plant	1200	3200

3. Choose .

   The structure of the product cost collector is displayed on the left-hand side of the screen *Display Product Cost Collector*.

4. Open the structure of materials *C-1113*.

   The system displays the production process for the material. You will notice that the level *material / plant / production version* has been selected as controlling level for the product cost collector for material *C-1113*.

5. Select production version *CPU-150 assembly production line 3*.

   If *CPU-150 assembly production line 3* is not present, you will have to create a product cost collector. Continue with step 7.

   On the right-hand side of the screen on the tab page *Data,* the system displays the organizational data and the control information for the costing, the overhead allocation, the creation of work in process and the variance calculation.

   If *CPU-150 assembly production line 3* is present, continue with step 13.

6. Choose *Create product cost collector*.

7. In the *Create product cost collector* dialog box, enter the following data:

Field	Europe	North America
Material	C-1113	C-1113

Order type	RM01	RM01
Planning Plant	1200	3200
Production version	0001	0001

8. Choose ✔ *Confirm.*
9. Choose the *Header* tab page and enter the description *CPU-150 assembly production line 3* in the field *Short text*.
10. Choose *Save*.
11. In the dialog box, choose *Yes*.

    The system informs you that the order has been created.
12. Choose the *Production Process* tab page.

    The assignment of the product cost collector to the production version is done using the production process number.

    Note down the production process number.
13. Remain on this screen.

Preliminary Costing for Product Cost Collectors

1. You are in the *Display Product Cost Collectors* screen.
2. Choose .
3. On the *Change Product Cost Collector* screen, choose *Cost*.

    In the status bar, you see the result of your costing run.

4. Choose *Goto* → *Display cost estimate*.

    In the *Display Material Cost Estimate with Quantity Structure* screen the costing results are displayed with the costing structure on the left-hand side of the screen.

5. Enlarge the left screen area to enable you to display the costing values per BOM item.

    In the upper window you can display additional information on the costing by using the various tab pages.

6. Choose to display in the lower part of the window an itemization for the costing.
7. Choose until the overview tree appears.

Backflushing for the First Reporting Point

Use

In this process step, you use two reporting points. At the first reporting point confirm the production quantity of 130 units. At this reporting point you only need parts R-1210, R-1230 and R1242. When you later continue production you will establish that part R-1220 is defective. However, you have already used 10 units for part R-1220 in the assembly and consequently have to scrap the 10 assembly groups concerned. You substitute R-1220 with part C-1230. Finally, at the second reporting point you confirm 110 units and categorize 10 units as work in process (130 units at reporting point 0010 less 10 units scrap, less 110 units at reporting point equals 10 units work in process).

In this process the confirmation of 130 units is displayed that have been executed prior to the first reporting point (milestone), and also the change to the input quantity of component R-1210.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Backflush → REM Backflush*
Transaction Code	MFBF

2. Enter the following data:

Field	Europe	North America
Assembly backflush	Select	Select
Backflush quantity	130	130
Posting date	Current date	Current date
Document date	Current date	Current date

3. On the *Make-to-stock* tab page, enter the following data:

Field	Europe	North America
Material	C-1113	C-1113
Plant	1200	3200
Production version	0001	0001
RP backflush	Select	Select
Reporting point	0010	0010

4. Choose *Post with Correction*.

   The components for material *C-1113* are displayed.

5. Make the following change in the line for material *R-1210*:

Field	Europe	North America
Quantity	65	65

Backflushing for the First Reporting Point

6. Choose *Actual activities*.
7. In the *Reporting Point Backflush* dialog box select the first operation and choose .
8. In the *Posting actual activities* screen the confirmation data is proposed. Change the required machine time, then enter the following data:

Field	Europe	North America
Machine	Select	Select
To be backflushed	5	5
Activity type	1420	1420

9. Choose .

   The system displays the message: *GI posted with document XXX and activities.*

10. Choose until the overview tree appears.

Analyzing the Costs for the Product Cost Collector

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Period → Information System → Reports for Product Cost by Period → Detailed Reports → For Product Cost Collectors*
Transaction Code	KKBC_PKO

2. If the *Set Controlling Area* dialog box appears, enter the following controlling area and choose ✔:

Field	**Europe**	**North America**
Controlling area	1000	2000

3. Enter the following data:

Field	**Europe**	**North America**
Material	C-1113	C-1113
Plant	1200	3200

4. Choose ⏲.

   You will see the costs per cost element in the *Analyze product cost collector:* screen.

5. Choose ⟲ until the overview tree appears.

Backflushing for Scrap for Reporting Point 2

Use

In a previous process step you confirmed that 130 units have reached the first reporting point. You now continue production. You have removed 10 units of R-1220 from the inventory and included them in the assembly, but only later discovered that this part is defective. The 10 assembly units concerned now have to be separated out as scrap. As part R-1220 is defective you are no longer going to use it in the production of your PC components. Instead you substitute R-1220 with C-1230, which is similar but a little more expensive.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Backflush → REM Backflush*
Transaction Code	MFBF

2. Choose *Scrap*, then enter the following data:

Field	Europe	North America
Assembly backflush	Select	Select
Scrap quantity	10	10
Reason	0003	0003
Posting date	Current date	Current date
Document date	Current date	Current date

3. On the *Make-to-stock* tab page, enter the following data:

Field	Europe	North America
Material	C-1113	C-1113
Plant	1200	3200
Production version	0001	0001
RP backflush	Select	Select
Reporting point	0030	0030

4. Choose *Post with Correction*.

5. In the *REM Backflush Transaction Variant: None* screen check the appropriate component withdrawals for the scrap quantity. Enter *0001* as storage location.

6. Choose *Actual activities*:

7. In the *Operation Selection for Backflushing Actual Activities* select the operations and choose .

8. Check the confirmation data and choose .

9. Check the confirmation data for this operation as well, and choose .
10. Choose until the overview tree appears.
11. If the *Exit Processing* dialog box appears, choose *Yes.*

Backflushing for the Second Reporting Point

Use

You are now at the second reporting point. Up to now you have only manufactured 110 of the 130 units that reached the first reporting point. 10 were separated out as scrap and 10 units have still to be manufactured. These 10 remaining units constitute work in process (WIP), and this is determined in one of the following processes.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Backflush → REM Backflush*
Transaction Code	MFBF

If you have not yet switched to yield backflush, choose *Yield*.

2. Enter the following data:

Field	Europe	North America
Backflush quantity	110	110
Posting date	Current date	Current date
Document date	Current date	Current date

3. On the *Make-to-stock* tab page, enter the following data:

Field	Europe	North America
Material	C-1113	C-1113
Plant	1200	3200
Production version	0001	0001
RP backflush	Select	Select
Reporting point	0030	0030

4. Choose *Post with Correction*.
5. On the *REM Backflush – Transaction Variant: None* screen select material *R-1220*.
6. Choose *Edit → Delete*.
7. Enter the following data:

Field	Europe	North America
Material	C-1230	C-1230
Quantity	110	110

Plant	1200	3200
Storage location	0001	0001

8. Choose *Actual activities*.
9. In the *Operation Selection for Backflushing Actual Activities* dialog box select your operation and choose .

   You can find additional information for analyzing the costs posted here under Analyzing the Costs for the Product Cost Collector [Page 51].

10. Choose .
11. Choose until the overview tree appears.

Calculating Overhead

Use

You have closed the production of your 110 units. You now need to add overhead rates to your production order. Such overhead is incurred for all trading goods or raw materials that have been withdrawn from the warehouse. The system has been set up so that an overhead rate of 15% is imposed on the value of the trading goods. The cost center *Warehouse* is credited with these costs, and the overhead assessed to our production order. You should note that this only involves a cost assignment, and that no accounting document is generated. Once all the costs have been collected, the production order is settled and all variances, including those caused by the overhead, are posted in FI by a price difference.

When creating the run schedule header the system assigned a run schedule header number and a product cost collector. If you do not know the number of the cost collector, proceed as follows:

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Environment → Period-end Closing for Product Cost Collector → Overhead Costs → Individual Processing*
Transaction Code	CO42

2. Enter the following data:

Field	**Europe**	**North America**
Material	C-1113	C-1113
Plant	1200	3200
Period	Current period	Current period
Fiscal year	Current year	Current year
Test run	Deselect	Deselect
Detail list	Select	Select
Dialog display	Deselect	Deselect

3. Choose .

   The system displays the message that the overhead calculation has been completed without errors.

4. Choose .

   The overhead allocated is displayed.

   You can find information for analyzing the costs posted here under Analyzing the Costs for the Product Cost Collector [Page 51].

5. Choose until the overview tree appears.

Calculating WIP

Use

In this process step you specify the work in process for the production order.

The system calculates the work in process for the 10 (130 – 10 – 110 = 10) units which had not been completed at the second reporting point. This means you are put in a position to determine the cost of goods manufactured for any material not yet transferred to the finished goods inventory. In this process you only create the CO document. When all costs have been collected, the production order is settled and the value of the work in process transferred to FI.

Procedure

1. Call up the transaction as follows:

Menu Path	Starting with the *Environment* node choose: *Period-end Closing for Product Cost Collector* → *Work in Process* → *Individual Processing* → *Calculate*
Transaction Code	KKAS

2. Enter the following data:

Field	**Europe**	**North America**
Material	C-1113	C-1113
Plant	1200	3200
WIP to period	Current month	Current month
Fiscal year	Current year	Current year
RA version	Select	Select
RA version	000	000
Test run	Deselect	Deselect
Display orders with errors	Select	Select

3. Choose .

   The system displays the message that *n* objects have been processed and errors occurred in *m* objects.

4. Choose *WIP Explanation.*

   The screen *Calculate Work in Process: Object List* appears and the values for each transaction are displayed.

   You can find information for analyzing the costs posted here under Analyzing the Costs for the Product Cost Collector [Page 51].

5. Choose until the overview tree appears.

Calculating Variances

1. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Environment → Period-end Closing for Product Cost Collector → Variances → Individual Processing*
Transaction Code	KKS6

2. In the *Variance Calculation: Initial Screen* Choose *Extras → Set Target Cost Versions....*

3. In the dialog box *Select target cost versions* select target version *0* and choose *Confirm*. Confirm your entry if prompted.

4. Choose *Extras → Set Controlling Area*.

5. Make the following entry in the dialog box *Set controlling area* and then choose :

Field	**Europe**	**North America**
Controlling area	1000	2000

6. Make the following entries:

Field	**Europe**	**North America**
Material	C-1113	C-1113
Plant	1200	3200
Period	Current period	Current period
Fiscal year	Current year	Current year
Selected target cost versions	Select	Select
Test run	Deselect	Deselect
Detail list	Select	Select

7. Choose .

   The *Variance Calculation: List* screen appears.

   You can find information for analyzing the costs posted here under Analyzing the Costs for the Product Cost Collector [Page 51].

8. Choose until the overview tree appears.

Settling the Product Cost Collector

Use

In this process step you settle the cost collector to the inventory. This means that both the work in process and the variances (including overhead) are posted to Financial Accounting. This data is then included in your profit and loss statement and so enables you to make a realistic assessment of your products. The product costs you calculated during the manufacture of the products data are reduced by the work in process and scrap, and increased through the variances.

Procedure

1. Call up the transaction as follows:

Menu Path	From the *Period-End Closing for Product Cost Collector* node choose → *Settlement* → *Individual Processing*
Transaction Code	KK87

2. Enter the following data:

Field	**Europe**	**North America**
Material	C-1113	C-1113
Plant	1200	3200
Settlement period	Current period	Current period
Posting period	Current period	Current period
Fiscal year	Current year	Current year
Test run	Deselect	Deselect
Detail list	Select	Select

3. Choose the F4 input help in the field *Production Process.* Production version *0001* appears.
4. Choose .
5. Choose in the *Actual Settlement: Product cost collector Basic List* screen.
6. In the *Actual Settlement Product cost collectors Detail List* screen select the values that have been settled.

   You will see the settlement of the variances for the product cost collector.
7. Choose .

   In the detail list *Results analysis data for FI* you will see the change to the work in process for the product cost collector.
8. Choose until the overview tree appears.

Product Costing by Period for an Individual Material

Purpose

When products are costed by period for an individual material, the costs incurred for production are displayed on a product cost collector without reference to the sales order.

When you post the goods receipt for the finished material, the system valuates this material and credits the product cost collector. These actions reflect the value determined by the cost estimate marked for the sales order item. This value is also used to display the cost of goods manufactured (COGM) on the sales order in Profitability Analysis (CO-PA).

At period end, the variances on the product cost collector are settled to the material. These variances are not displayed in detail for the customer and the material in Profitability Analysis. They are displayed only for the overall material.

Process Flow

You can find the data for this process under ? [Page 63].

Data Used During This Process

Field	Data	Description
Material	AM2-GT	Sapsota Fundrive
Plant	1000	Hamburg
Sales organization	1000	Germany Frankfurt
Distribution channel	12	Repeat buyer
Division	00	Cross-divisional
Operating concern	IDEA	Global IDES
Type of Profitability Analysis	Costing-based	
Profitability Reports	IDES-350	Results analysis

Changing the Material Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Change → Immediately*
Transaction Code	MM02

2. Enter the following data:

Field	Data
Material	AM2-GT

3. Choose *Select view(s)*.
4. In the dialog box, choose .
5. Select the line *MRP4*.
6. Choose *Organizational levels*.
7. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1000

8. Choose .
9. Check the entries in the screen *Change Material AM2-GT (Finished product)* and change them as necessary:

Field	Data
Repetitive manufacturing	Select
REM profile	A002

10. Choose .

    You receive the message *Material AM2-GT changed (*if relevant).

11. Choose .

Creating a Sales Order

1. Call up the transaction as follows:

Menu Path	*Logistics → Sales and Distribution → Sales → Order → Create*
Transaction Code	VA01

2. Enter the following data:

Field	Data
Order type	OR
Sales organization	1000
Distribution channel	12
Division	00

3. Choose ✅.
4. Enter the following data:

Field	Data
Sold-to party	1012
Purch. order no	Any six figure number
Req.deliv.date	Today's date + 10 working days
Material	AM2-GT
Order quantity	1

5. Choose ✅.
6. In the *Information* dialog box, choose ✔.
7. To configure the product, enter the following data:

Field	Data
Motor	Motor 6 cyl. 112 kW
Transmission	(02) Automatic
Paint	(USC) Black (plain)
Trim	(L) Leather
Interior color	(S) Black
Options	(KA) Air conditioning (BC) Navigation system (RBU) Radio business sound

8. Choose *Conditions.*

   In the *Create Standard Order: Overview* dialog box, you see the prices for the optional extras.

9. Choose .
10. Choose .
11. In theCreate Standard Order: Overview screen, select the row for item 10, then choose *Extras* → *Costing*.
12. On the screen *Sales Order Costing* choose .

    The costing is displayed.
13. Choose .

    You receive the warning *Marked cost estimates generated for material valuation.*
14. Choose .
15. Choose .
16. In the dialog box *Update Parameters*, choose .
17. Choose .

    The system displays the message *Standard Order XXX has been saved*.
18. Make a note of the sales order number.
19. Choose .
20. In the *Cancel Order Processing* dialog box, choose *Yes.*
21. Choose .

Check Order Data in CO-PA

1. Call up the transaction as follows:

Menu Path	*Accounting* → *Controlling* → *Profitability Analysis* → *Information System* → *Display Line Item List* → *Actual*
Transaction Code	KE24

2. In the *Set Operating Concern* dialog box, enter the following data:

Field	Data
Operating concern	IDEA
Type of Profitability Analysis	Costing-based

3. Choose ✔.
4. On the *Display Actual Line Items: Initial Screen* screen, enter the following data:

Field	Data
Currency type	B0
Record type	A
Period/year	Current month / year
Sales order	No. of the sales order you created

5. Choose .

   On the *Display Actual Line Items: List* screen, you see the document you have created. This contains the order data relevant for Profitability Analysis (record type A). As well as the order data, the billing data are also transferred into Profitability Analysis.

6. Select this document, then choose .

   On the *Display Line Items* screen, you see the details of the selected Profitability Analysis document. In the top area of the screen, you see general data, such as the document number. The *Characteristics* tab page contains the characteristic attributes specified in the account assignment or derived by the system. Characteristics exist for all dimensions that can be used for analysis purposes in Profitability Analysis.

7. Choose the *Value fields* tab page.

   This tab page contains detailed information about the order quantity, revenue, discounts and various items relating to the cost of goods manufactured. The COGM are transferred from the standard cost estimate for the sales order.

8. Choose until the overview tree appears.

Executing Material Requirements Planning

9. Call up the transaction as follows:

Menu Path	*Logistics → Production → MRP → Planning → Single-Item, Multi-Level*
Transaction Code	MD02

10. Enter the following data:

Field	**Data**
Material	AM2-GT
Plant	1000
Processing key	NETCH
Create purchase req.	2
Schedule lines	3
Create MRP list	1
Planning mode	3
Scheduling	1
Also plan unchanged components	Select
Display material list	Select

11. Choose twice.

12. Choose and until the overview tree appears.

Costing the Product Cost Collector

13. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Master Data → Product Cost Collector → Process Product Cost Collector*
Transaction Code	KKF6N

14. If material *AM2-GT* is not displayed yet make the following entries in the *Display Product Cost Collector*:

Field	**Data**
Material	AM2-GT
Plant	1000

15. Choose .
16. On the left hand side of the screen open the structure of *AM2-GT* to display the related product cost collector.
17. Select the lower entry of *SAPSOTA FUN DRIVE 2000GT*.
18. Choose .
19. On the *Change Product Cost Collector* screen, choose *Cost*.
20. Choose *Goto → Display cost estimate*.

    Unlike the sales order the product cost collector is subject to a preliminary costing with a variant of AM2-GT, where it is assumed that this represents an 'average' configuration.

21. Choose .
22. Choose .

    The system displays the message *Product cost collector with order number ### has been changed*.

23. Choose .

Execute Goods Receipt Notification

24. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Backflush → REM Backflush*
Transaction Code	MFBF

25. Choose the *Make-to-order* tab page.
26. Enter the following data:

Field	Data
Sales order	noted sales order number
Sales ord. item	10

27. Choose .
28. Choose .
29. In the *Maintain Serial Numbers* dialog box, choose *Create SerialNo automatically* and then .
30. Choose .
31. If the *Exit Processing* dialog box appears, choose *Yes.*

Execute Separated Backflush

32. Call up the transaction as follows:

Menu Path	*Logistics → Production → Repetitive Manufacturing → Backflush → Separated Backflush*
Transaction Code	MF70

33. Enter the following data:

Field	Data
Post goods issue	Select
Post production activities	Select
Make-to-stock	Deselect
Make-to-order production	Select
KANBAN	Deselect
Plant	1000
Posting date	Current date
Sales order	Your sales order number
Sales order item	10

34. Choose .
35. Choose .
36. Choose until the overview tree appears.

Calculating Overhead Costs

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Period → Period-End Closing → Single Functions: Product Cost Collector → Overhead → Individual Processing*
Transaction Code	CO42

2. In the *Set controlling area* dialog box, enter the following data:

Field	Data
Controlling area	1000

3. Choose ✔.

4. Enter the following data:

Field	Data
Material	AM2-GT
Plant	1000
Prod. process number	Pversion:0001
Period	Current period (month)
Fiscal year	Current year
Test run	Deselect
Detailed lists	Select

5. Choose .

   The *Actual Overhead Calculation: Product cost collector Basic List* screen appears.

6. Choose .

7. Choose until the overview tree appears.

Analyzing Costs on Product Cost Collector

37. Call up the report as follows:

Menu Path	From the *Cost Object Controlling* node choose: *Product Cost by Period* → *Information System* → *Reports for Product Cost by Period* → *Detailed Reports* → *For Product Cost Collectors*
Transaction Code	KKBC_PKO

38. Enter the following data:

Field	Data
Material	AM2-GT
Plant	1000
Production process	Pversion:0001
Time frame: Limited	select
Period from	Current period
To period	Current period

39. Choose .

    In the *Total* column, you see all the debits and credits for the reporting period. For each sales order, the system displays the debits (charges) due to the consumption of materials and activity (labor), and also the credits posted to the production cost collector in accordance with the sales order costing for the goods issue notification. When you use costing sheet COGM, the overhead costs are only applied when you calculate the overhead [Page 72].

40. Choose until the overview tree appears.

Posting a Goods Issue

41. Call up the transaction as follows:

Menu Path	*Logistics → Sales and Distribution → Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*
Transaction Code	VL01N

42. Enter the following data:

Field	**Data**
Shipping point	1000
Selection date	Today’s date + 1 month
Order	Your sales order number

43. Choose .
44. In the *Delivery create: Overview* screen select the *Picking* tab page.
45. Enter the following data:

Field	**Data**
SLoc	0002
Pick Quantity	1

46. Choose .
47. As the product requires a serial number, select the item, then choose *Extras → Serial numbers*.
48. In the *Maintain Serial Numbers* dialog box, choose *Create SerialNo automatically.*
49. Choose .
50. Choose *Post goods issue*.

    The system displays the message *Delivery XXX has been saved*.

51. Choose .

Creating a Billing Document

52. Call up the transaction as follows:

Menu Path	*Logistics → Sales and Distribution → Billing → Billing document → Create*
Transaction Code	VF01

53. Enter the following data:

Field	**Data**
Document number	Accept predefined document number

54. Choose .
55. Choose .

    The system displays the message *Document XXX has been saved*.

56. Choose .

Calculating Variances

57. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Period → Period-End Closing → Single Functions: Product Cost Collector → Variances → Individual Processing*
Transaction Code	KKS6

58. Enter the following data:

Field	**Data**
Material	AM2-GT
Plant	1000
Prod. process no.	Pversion:0001
Period	Current period
Fiscal year	Current year
Selected target cost versions	Select
Test run	Deselect
Detail list	Select

59. Choose .

60. Select the data record displayed in the screen *Variance Calculation: List* and choose .

    The resulting variance amounts to the sum of the variances on the input and output side respectively.

    The variance on the input side is the difference between the control costs and the target costs. The control costs are the costs (actual costs) posted for the sales order on the product costs collector, less the work in process and scrap. The target costs are equivalent to the standard price multiplied by the order quantity. The standard price originates from a released standard cost estimate.

    The variance on the input side is the difference between the control costs and the target costs. The actual costs allocated represent the credit of the product cost collector for the costs as have been calculated in the appropriate sales order.

61. Choose until the overview tree appears.

Settling Variances to CO-PA

62. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Period → Period-End Closing → Single Functions: Product Cost Collector → Settlement → Individual Processing*
Transaction Code	KK87

63. Enter the following data:

Field	**Data**
Material	AM2-GT
Plant	1000
Prod. process number	Pversion:0001
Settlement period	Current period
Posting period	Current period
Fiscal year	Current year
Test run	Deselect
Detail list	Select

64. Choose .

The *Actual Settlement: Product cost collector Basic List* screen appears.

65. Choose until the overview tree appears.

Displaying the Results of the Sales Order

66. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Profitability Analysis → Information System → Execute Report*
Transaction Code	KE30

67. In the report list select *IDES-350 (Results Analysis AM2-GT)*.
68. Choose .
69. On the *Selection*: *Results analysis AM2_GT* screen, enter the following data:

Field	Data
From fiscal year	Current year
From period	Current period
To period	Current period

70. Choose .

    The system displays a profitability report for material AM2-GT, initially displaying the detail list. The variances are also displayed in addition to the sales data and cost of goods manufactured.

71. In the *Navigation* area choose *Customer*.
72. In the screen *Drill-down: Callup for documentation on hotspots* choose .

    The system now displays the data at customer level, specifically for customer *1012*. The variances are not included in this view. They cannot be assigned to an individual customer, because *Lean Controlling* has been used in the production area. This means that there is no reference to the customer in this area.

    The values displayed originate from the costing performed when you created the standard order for this customer and from the invoice.

73. Choose until the overview tree appears.
74. In the *Exit Report* dialog box, choose *Yes*.

Resetting the Material Master Record

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Material Master → Material → Change → Immediately*
Transaction Code	MM02

2. Enter the following data:

Field	Data
Material	AM2-GT

3. Choose *Select view(s)*.
4. In the dialog box, choose .
5. Select the line *MRP4*.
6. Choose *Organizational levels*.
7. In the *Organizational Levels* dialog box, enter the following data:

Field	Data
Plant	1000

8. Choose .

   The *Change Material AM2-GT (Finished product)* screen appears.
9. Choose the *MRP 4* tab page.
10. Check the following entries and if necessary change them as appropriate:

Field	Data
REM profile	A001

11. Choose .

    You receive the message *Material XXX changed (*if relevant).
12. Choose .

Executing Multilevel Price Determination

Purpose

Multilevel price determination is used to calculate the actual prices of externally procured and in-house materials. The calculation of actual prices can be used to valuate the period-end inventory. In addition, the Actual Costing/Material Ledger component provides you with numerous tools which you can use to analyze the actual prices.

The following scenarios are envisaged for multilevel price determination:

- Carrying out multilevel price determination and a simple analysis
- Analysis for multilevel price determination with the actual cost component split, and integration with Profitability Analysis

In the example used, you carry out multilevel price determination at the period end, and analyze the results.

You can find more information about this example under [Page 82]

Prerequisites

To calculate the actual costs at the period end you must have set the material ledger in the relevant controlling area to active, and you must specify that the materials are included in the actual costing.

Process Flow

You can find the data for this example under [Page 84]

1. Creating a Purchase Order [Page 85]
2. Entering the Goods Receipt [Page 87]
3. Entering the Invoice [Page 88]
4. Post Consumption to Cost Center [Page 89]
5. Creating a Production Order [Page 90]
6. Confirming the Production Order [Page 91]
7. Production Order Period-end Closing [Page 92]
8. Material Transfer Posting [Page 95]
9. Sale to External Customers [Page 96]
10. Entering the External Invoices [Page 98]
11. Completing Period-End Closing in Cost Center Accounting [Page 100]
12. Analyzing the Material Inventory Values Before Period-End Closing [Page 102]
13. Creating a Costing Run for Single-level Price Determination [Page 104]

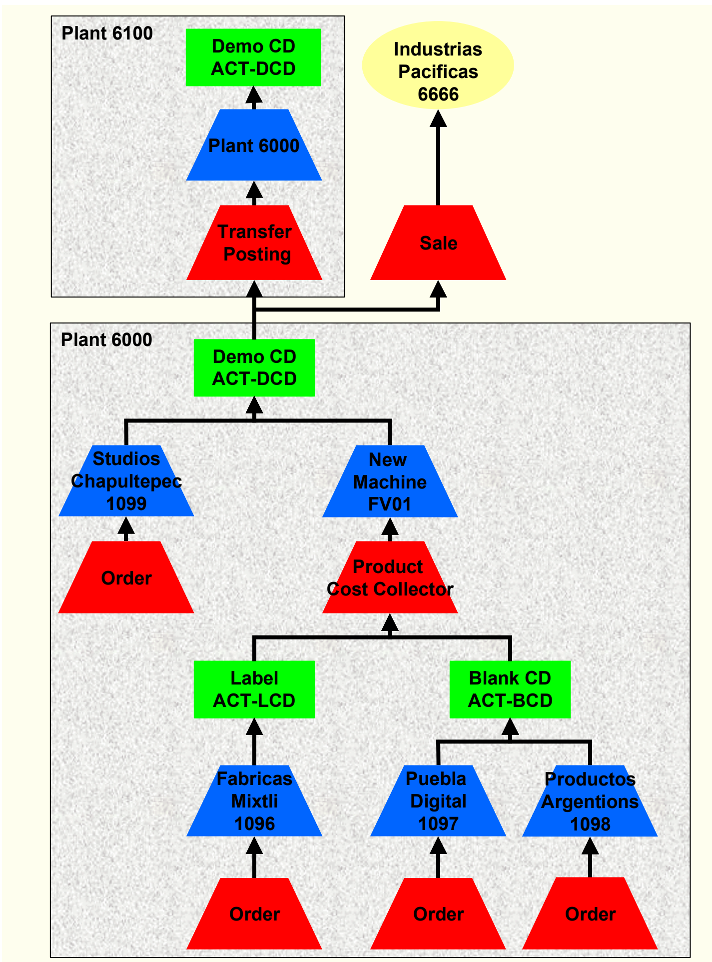
14. Analyzing Single-level Price Determination [Page 107]
15. Creating a Costing Run for Multilevel Price Determination [Page 109]
16. Analyzing Multilevel Price Determination [Page 112]

Additional Process Information

In the examples designed to illustrate price determination in the IDES Company, you are operating in the following business management environment:

The IDES Company in Mexico (company code 6000) is carrying out the price determination and is involved in the production and sale of demo CD´s. There are two plants in Mexico: plant 6000 is in Mexico City, and plant 6100 in Monterrey. The demo CD’s are produced in plant 6000.

The following graphic illustrates the organizational and production structure:



The demo CD’s are produced in the plant in Mexico City, being either sold or transferred to the other plant in Monterrey. The materials to be used in the production process – blanks and labels – are externally procured.

When you use price determination all goods movements are provisionally valuated with the standard price, and differences between this provisional valuation and the values actually posted are collected as price and exchange rate differences in the material ledger.

At the period end the periodic unit price (actual price) is determined for all materials, taking into account all of the price and exchange rate differences, and you can use this to revaluate the period end closing stock balance if you wish.

Since the material ledger updates all goods movements in one separate quantity structure, it is in a position to roll up price and exchange rate differences for materials to materials of a higher manufacturing level. This means that price variations for raw materials are taken into account in the prices of the finished products.

Data Used During This Process

Field	Data
Vendor	1096; 1097; 1098; 1099
Purchasing org.	6000
Sales org.	6000
Purchasing group	600
Company code	6000
Material	ACT-LCD; ACT-BCD; ACT-DCD
PO quantity	1000; 500; 200
Plant	6000
Receiving plant	6100
Storage location	0001
Receiving storage location	0001
Amount	280
Currency	MXN
Tax code	V0
Movement type	201; 301
Cost center	530CC1; 530CC2
Order type	PP08; TA
Controlling area	6000
Distribution channel	10
Division	00
Sold-to party	6666
Shipping point	6000
Business process	300200
Costing run	ACT530

Creating a Purchase Order

Use

In order to be able to carry out multilevel price determination, you make various goods postings within this process step.

Procedure

1. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Purchasing → Purchase Order → Create → Vendor/Supplying Plant Known*
Transaction Code	ME21N

2. Enter the following data:

Field	**Data**
(Document type)	Standard purchase order
Vendor	1096

3. Choose *Header*, and then enter the following data in the *Org.data* tab page:

Field	**Data**
Purchasing organization	6000
Purchasing group	600
Company code	6000

4. Choose *Item Overview*, then enter the following data:

Field	**Data**
Material	ACT-LCD
PO quantity	1000
Plant	6000
Storage location	0001

5. Choose .

   You can see that some of the entries have been drawn from an information record, for example net price or delivery date.

6. Choose .

   The system displays the message *Standard PO created under number XXX*.

7. Note this number.
8. Repeat steps 2 to 5 entering the following data:

Field	**Data**	**Data**	**Data**

Document type	Standard purchase order	Standard purchase order	Standard purchase order
Vendor	1097	1098	1099
Purchasing org.	6000	6000	6000
Company code	6000	6000	6000
Material	ACT-BCD	ACT-BCD	ACT-DCD
PO quantity	500	500	200
Plant	6000	6000	6000
Storage location	0001	0001	0001

9. If you are requested to enter a *Purchasing group* then enter *600* in the relevant field and choose again.
10. Choose until the overview tree appears.

Entering the Goods Receipt

11. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Receipt → For Purchase Order → PO Number Known*
Transaction Code	MIGO

12. Enter the following data:

Field	**Data**
Goods receipt/Purchase order	Order number created first
Document date	Current date
Posting date	Current date

13. Choose ✓.

14. In the lower screen area, enter the following data:

Field	**Data**
Item OK	Select

15. Choose 💾.

16. Repeat steps 2 to 5 for all of the purchase orders.

17. Choose ⬅ until the overview tree appears.

Entering the Invoice

18. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Logistics Invoice Verification → Document Entry → Enter Invoice for Invoice Verification*
Transaction Code	MIRO

19. If the *Company code* dialog box appears, enter *6000* and choose :

20. Enter the following data:

Field	**Data**
Invoice date	Current date
Posting date	Current date
Amount, first field/second field	280 / MXN
Calculate tax	Select
Tax code	V0

21. On the *PO reference* tab page in the lower part of the screen, enter the following data:

Field	**Data**
Purchasing order/scheduling agreement	Order number for vendor 1096

22. Choose .

23. In the tab page *PO reference* adjust the *Amount* to the amount entered above.

24. Choose .

    The document was posted.

25. Choose until the overview tree appears.

Post Consumption to Cost Center

26. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Goods Issue (MIGO)*
Transaction Code	MIGO_GI

27. In the screen *Goods Issue Reservation* select the entry *Others* in the *Reservation* field using the input help.

28. On the *General* tab page, enter the following data:

Field	Data
Document date	Current date
Posting date	Current date

29. On the *Material* tab page, enter the following data:

Field	Data
Material	ACT-LCD

30. Choose the quantity (*Qty)* tab page.

31. Enter the following data:

Field	Data
Qty in unit of entry	200

32. Choose the *Wk* tab page.

33. Enter the following data:

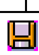
Field	Data
Movement type	201
Plant	6000
Storage location	0001

34. Choose .

35. Choose the *Acct Assignment* tab page.

36. Enter the following data:

Field	Data
Cost center	530CC1

37. Choose .

    The system displays the message: *Material Document XXX posted*

38. Choose until the overview tree appears.

Creating a Production Order

39. Call up the transaction as follows:

Menu Path	*Logistics* → *Production* → *Production control* → *Order* → *Create* → *With material*
Transaction Code	CO01

40. Enter the following data:

Field	**Data**
Material	ACT-DCD
Production plant	6000
Order type	PP08

41. Choose ✓.
42. On the *Create Production Order: Header* screen, enter the following data:

Field	**Data**
Total quantity (under *Quantities*)	800
Finish (under *Dates*)	Current date

43. Choose ✓.
44. Choose [flag icon].
45. Choose [save icon].

    The system displays the message *Order number XXX saved*.

46. Note this number.
47. Choose [back icon] until the overview tree appears.

Confirming the Production Order

48. Call up the transaction as follows:

Menu Path	*Logistics → Production → Production control → Confirmation → Enter → For order*
Transaction Code	CO15

49. Enter the following data:

Field	**Data**
Order	Your order number

50. Choose .

51. On the *Confirmation of Production Order Create : Actual data* enter the following data:

Field	**Data**
Final confirmation	Select
Yield to confirmation, (first field/second field)	750 / ST
Confirmed scrap	50
Posting date	Current date

52. Choose .

The system displays the message *Confirmation saved (Goods movements: 3, failed: 0)*

53. Skip any warning messages displayed by choosing .

54. Choose until the overview tree appears.

Production Order Period-end Closing

55. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Cost Object Controlling → Product Cost by Period→ Period-End Closing → Single Functions: Product Cost Collector→ Overhead → Individual Processing*
Transaction Code	CO42

A dialog box appears if you have not yet set the controlling area.

56. In the dialog box, enter the following data:

Field	**Data**
Controlling area	6000

57. Choose .

58. On the *Actual Overhead Calculation: Product cost collector* screen, enter the following data:

Field	**Data**
Material	ACT-DCD
Plant	6000
Period	Current period
Year	Current fiscal year
Test run	Deselect

59. Choose .

You receive the results of the overhead.

60. Choose until the overview tree appears.

61. Call up the transaction for the variance calculation as follows:

Menu Path	From the *Single Functions. Product Cost Collector* node, choose *Variances → Individual Processing*
Transaction Code	KKS6

62. On the *Variance Calculation: Initial Screen*, enter the following data:

Field	**Data**
Material	ACT-DCD
Plant	6000
Period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

63. Choose .

You receive the results of the variance calculation.

64. Choose until the overview tree appears.

65. Call up the transaction for the settlement as follows:

Menu Path	From the *Single Functions: Product Cost Collector* node, choose *Settlement → Individual Processing*
Transaction Code	KK87

66. Enter the following data:

Field	**Data**
Material	ACT-DCD
Plant	6000
Period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

67. Choose .

    You receive the results of the settlement.

68. Choose until the overview tree appears.

Material Transfer Posting

69. Call up the transaction as follows:

Menu Path	*Logistics → Materials Management → Inventory Management → Goods Movement → Transfer Posting*
Transaction Code	MB1B

70. Enter the following data:

Field	**Data**
Document date	Current date
Posting date	Current date
Movement type	301
Plant	6000
Storage location	0001

71. Choose .

72. On the *Enter Transfer Posting: New Items* screen, enter the following data:

Field	**Data**
Receiving plant	6100
Recv. SLoc	0001
Material	ACT-DCD
Quantity	100

73. Choose .

The system displays the message: *Document XXX posted*

74. Choose until the overview tree appears.

Sale to External Customers

75. Call up the transaction as follows:

Menu Path	*Logistics → Sales and Distribution → Sales → Order → Create*
Transaction Code	VA01

76. Enter the following data:

Field	Data
Order type	OR
Sales organization	6000
Distribution channel	10
Division	00

77. Choose ✓.
78. On the *Create Standard Order: Overview* screen, enter the following data:

Field	Data
Sold-to party	6666
PO number	Your initial one + the current date
Material	ACT-DCD
Quantity	100

79. Choose 💾.

   The system displays the message *Standard Order XXX has been saved*.

80. Note this number. You will need it again later.
81. Choose ⬅ until the overview tree appears.
82. In the dialog box, choose *No*.
83. Call up the transaction for the delivery of the material to the customer as follows:

Menu Path	From the node *Sales and Distribution* choose *Shipping and Transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*
Transaction Code	VL01N

84. Enter the following data:

Field	Data
Shipping point	6000
Selection date	Today's date +30 days

Order	Your order number

85. Choose .
86. In the screen *Delivery create: overview* select the tab page *Picking.*
87. Enter the following data:

Field	Data
Storage location	0001
Picking Quantity	100

88. Choose *Post goods issue*.

    The system displays the message *Delivery XXX saved*.

89. Note this number.

    You will need it again later.

90. Choose until the overview tree appears.
91. Call up the transaction for creating a billing document as follows:

Menu Path	From the *Sales and Distribution* node, choose *Billing* → *Billing Document* → *Create*
Transaction Code	VF01

92. Enter the following data:

Field	Data
Billing document	Current date

93. Choose .

    The system displays the message *Document XXX saved*.

94. Choose until the overview tree appears.

Entering the External Invoices

95. Call up the transaction as follows:

Menu Path	*Accounting → Financial Accounting → General Ledger → Document Entry → Enter G/L Account Document*
Transaction Code	FB50

96. Enter the following data:

97. If the *Company code* dialog box appears, enter the following data and choose ✔:

Field	**Data**
Company code	6000

98. Enter the following data:

Field	**Data**
Document date	Current date
Posting date	Current date
Currency	MXN

99. In the *Items* screen area, enter the following data:

To make this simpler, you can move the relevant columns so that all of the corresponding input fields are at the front end of the table.

Field					
G/L account	D/C	Amount in doc. currency	Tax code	Cost center	Business process
Data					
404000	D	12	V0		300200
404000	D	37	V0	530CC1	
415000	D	5	V0		300200
415000	D	19	V0	530CC2	
416100	D	5	V0		300200
416100	D	19	V0	530CC2	
416100	D	74	V0	530CC1	
416300	D	10	V0		300200
416300	D	55	V0	530CC1	
416300	D	19	V0	530CC2	

420000	D	2			300200
420000	D	37		530CC2	
421000	D	10			300200
421000	D	155		530CC1	
421000	D	51		530CC2	
430000	D	14			300200
430000	D	214		530CC1	
430000	D	25		530CC2	
481000	D	12			300200
481000	D	19		530CC2	
100000	C	794			

100. Choose 💾.

The system displays the message: *Document XXX posted in company code 6000.*

101. Choose 🔙 until the overview tree appears.

In the *Exit Processing* dialog box, choose *Yes.*

Completing Period-End Closing in Cost Center Accounting

Use

You want to calculate actual prices within period-end closing for Cost Center Accounting. With the actual price calculation you also receive the cost component split for the actual allocation records.

Procedure

102. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Cost Center Accounting → Period-End Closing → Single-Functions → Splitting.*
Transaction Code	KSS2

103. Enter the following data:

Field	**Data**
All cost centers	Select
Version	0
Period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

104. Choose .

You receive the actual cost component split log.

105. Choose until the overview tree appears.

106. Call up the transaction for the actual price calculation as follows:

Menu Path	From the *Single Functions* node, choose *Price Calculation*
Transaction Code	KSII

107. Enter the following data:

Field	**Data**
All cost centers	Select
No business processes	Select
Version	0
Period	Current period
Fiscal year	Current fiscal year
Test run	Deselect

108. Choose .

109. In the *Information* dialog box, choose .

You receive the actual cost component split log.

110. Select entry *530CC2/530AT2* and choose *Goto* → *Components*.

You receive the cost component split for the selected allocation record.

111. Choose until the overview tree appears.

112. In the *End price calculation* dialog box, choose *Yes*.

Analyzing the Material Inventory Values Before Period-End Closing

Use

You display the inventory values and valuation of the CD labels before the multilevel price determination, and note down some of these values.

Procedure

113. Call up the transaction as follows:

Menu Path	*Accounting* → *Controlling* → *Product Cost Controlling* → *Actual Costing/Material Ledger* → *Material Ledger* → *Material Price Analysis*
Transaction Code	CKM3

114. Enter the following data:

Field	**Data**
Material	ACT-LCD
Plant	6000
Period/year	Current period/current fiscal year
Currency	Company code currency
View	Price determination structure

115. Choose *Prices and inventory values.*

116. Open the category *Consumption* in the price determination structure, in order to display the lines *Production* and *Cost center*

117. Check the following entries for the current period:

Field	**Data**
Period status	Quantities and values entered
Standard price	XXX
Periodic unit price	XXX
Price control	S
Current stock value	XXX
Inv. value (stat.)	XXX

In the lower screen area:

Cumulative inventory	XXX
Consumption	XXX
Production	XXX

Cost center	XXX
Ending inventory	XXX

The data relevant for this process is found in the cells in the table indicated with *XXX*.

118. Choose until the overview tree appears.

Creating a Costing Run for Single-level Price Determination

Use

Multilevel price determination is executed at plant level. In the following process steps you create a costing run for the plants in controlling area Mexico, and carry out the individual flow steps.

Prerequisites

You can only post the multilevel price determination for the respective previous MM period. Therefore you have to close the current period so that the following month is now the 'current' MM period.

Procedure

119. Call up the transaction as follows:

Menu Path	*Logistics→ Materials Management → Material Master → Other → Close Period*
Transaction Code	MMPV

120. Enter the following data:

Field	**Data**
From company code	6000
Enter next period	Current period + 1
Fiscal year	Current fiscal year
Check and close period	Select

121. Choose ⊕.

You receive the close period log.

122. Choose ⊕ until the overview tree appears.

123. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Actual Costing → Edit Costing Run*
Transaction Code	CKMLCP

124. On the *Costing Cockpit: Actual Costing – Change/Execute* screen, enter the following data:

125.

Field	**Data**
Costing run (1 field / 2 field)	ACT530 / Actual costing period/year
Period	Current period/current fiscal year

126. Choose (*Create costing run)*.

127. In the dialog box *Create costing run*, choose .

In the screen *Costing Cockpit: Actual Costing – Change / Execute* the system displays in the settings area those plants for which a costing run is to be carried out.

128. Assign the available plants *6000* and *6100* to the costing run.

These plants are now under the area *Assigned plants.*

129. Choose .

130. To display the individual process steps of the costing run, choose *Process.*

131. Select the row *Selection*, then choose *(Change parameters)*.

132. In the screen *Maintain Variant: Report SAPCKMLMV_RUN_BASIC_LIST, Variant*, enter the following data:

Field	Data
Background processing	Deselect
Save log	Select

133. Choose .

134. Choose .

135. Select the row *Selection*, then choose *(Execute)*.

The system displays the results log for the selection.

136. Choose .

137. In the screen *Costing Cockpit: Actual Costing – Change / Execute* select the process step *Determine sequence* and choose .

138. In the screen *Maintain Variant: Report SAPCKMLMV_CREATE_STEPS, Variant*, enter the following data:

Field	Data
Background processing	Deselect
Save log	Select

139. Choose .

140. Choose .

141. Select the row *Determine sequence*, then choose .

The system displays the results log. You can see which materials have been assigned to the various costing/manufacturing levels.

142. Choose .

143. In the screen *Costing Cockpit: Actual Costing – Change / Execute* select the process step *Single-level price determination* and choose .

Creating a Costing Run for Single-level Price Determination

144. In the screen *Maintain Variant: Report SAPRCKMA_RUN_SETTLE, Variant* enter the following data:

Field	Data
Treating materials already processed	Select
Background processing	Deselect
Save log	Select

145. Choose .

146. Choose .

147. In the screen *Costing Cockpit: Actual Costing – Change / Execute* select the process step *Single-level price determination* and double-click on .

This allows single-level and multilevel price determination.

148. Select the row *Single-level price determination*, then choose .

The system displays the results log. The system displays which materials have been successfully costed.

149. Choose until the overview tree appears.

Analyzing the Single-Level Price Determination

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Material Ledger → Material Price Analysis*
Transaction Code	CKM3

2. Enter the following data:

Field	**Data**
Material	ACT-LCD
Plant	6000
Period/year	Current period/current fiscal year
Currency	Company code currency

3. Choose *Prices and inventory values.*
4. Open the category *Consumption* in the price determination structure, in order to display the lines *Production* and *Cost center*
5. Check the following entries for the current period:

Field	**Data**
Period status	Price determined single-level
Standard price	XXX
Periodic unit price	XXX
Price control	S
Current stock value	XXX
Inv. value (stat.)	XXX

In the lower screen area:

Cumulative inventory	XXX
Consumption	XXX
Production	XXX
Cost center	XXX
Ending inventory	XXX

The row *Not allocated* displays the price differences for the consumption of the material. These values are only allocated during the multilevel price determination. The data relevant for this process is found in the cells in the table indicated with *XXX*.

Analyzing the Single-Level Price Determination

6. Open the category *Ending inventory* in the overview list and display the material ledger document for singe-level price determination.
7. Double-click on the appropriate line in the document.

   You will see the line item displayed.
8. Choose [Back] until the overview tree appears.

Creating a Costing Run for Multilevel Price Determination

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Actual Costing → Edit Costing Run*
Transaction Code	CKMLCP

2. In the screen *Costing Cockpit: Actual Costing – Change / Execute* select the process step *Multilevel price determination* and choose .
3. In the screen *Maintain Variant: Report SAPRCKMA_RUN_MLEVEL_SETTLE, Variant*, enter the following data:

Field	Data
Background processing	Deselect
Save log	Select

4. Choose .

   The system displays the message *Values of variant XXX saved*.

5. Choose .
6. Choose in the row *Multilevel price determination*.

   The system displays the results log. The system displays which materials have been successfully costed.

7. Choose .
8. To display the materials included in the costing run, choose *Costing results.*
9. Enter the following data:

Field	Data
View	Overview: Costing Run
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

10. In the area *Results* select your costing run and using the right mouse button choose *Display material list.*

    On the right-hand side of the screen you will see the materials selected with their corresponding processing status

11. To obtain an overview of the material movements, choose   → *Select layout*
12. In the dialog box *Choose layout* select the entry *Transaction data.*

    The system displays the materials selected for the price determination together with their transaction data.

13. To display the price differences per material choose   → *Select Layout.*
14. In the dialog box *Choose layout* select the entry *Price analysis.*

The system displays the materials selected for the price determination together with their price differences.

15. To analyze the origin of the price differences for your demo CD's, double-click on the corresponding material in plant *6100* in the area *Display material list.*

    The material ledger for your demo CD is displayed.

16. Choose → *Select layout*.
17. In the dialog box *Choose layout* select the entry *Single- and multilevel differences* and choose *Copy.*
18. Make a note of the single and multilevel differences from the category *Receipts*.

Column	**Receipts**
Single-level price differences	
Multilevel price differences	

19. To display the origin of the multilevel price differences, choose *Receipts* → *Stock transfer*.
20. Select *Receipts from lower levels* and using the right mouse button choose *Display document.*

    In the screen *Display Material Ledger Document XXX: Overview* you can see from which material the multilevel price difference comes.

    You may have to expand the list level if no material is displayed. Click on the appropriate file symbol.

21. Choose , until the screen *Costing Cockpit: Actual Costing – Change / Execute* appears.
22. Double-click on material *ACT-DCD* in plant *6000* and open the category *Receipts*.
23. Check the price variances for the demo CD's and note how high the price differences are.

Column	**Price differences**
Receipt from purchase orders	
Receipt from production	

24. To analyze the price differences from the receipt of the production choose → *Select layout*.
25. In the dialog box *Choose layout* select the entry *Single- and multilevel differences* and choose *Copy.*
26. Make a note of the amount of the differences in the row *Production.*

Column	**Production**
Single-level price difference	
Multilevel price difference	

27. Using the material document, check which material components are responsible for the multilevel price differences.

28. In the category *Production* select the step *Receipts from lower levels* and using the right mouse button choose *Display document.*

    You can see from which material the multilevel price difference comes.

    You may have to expand the list level if no material is displayed. Click on the appropriate file symbol.

29. Choose , until the screen *Costing Cockpit: Actual Costing – Change / Execute* appears.

30. In the row *Post closing* double-click on .

    This allows you to carry out closing postings.

31. In the row *Post closing* double-click on .

32. In the screen *Maintain Variant: Report SAPRCKMA_RUN_CLOSE, Variant* enter the following data:

Field	Data
Execute	Select
Revaluate material	Select
Background processing	Deselect
Test run	Deselect
Save log	Select

33. Choose .

    The system displays the message *Values of variant XXX saved*.

34. Choose .

35. In the row *Post closing* double-click on .

    The system displays the results log. The system displays which materials have been successfully closed.

36. Choose until the overview tree appears.

Analyzing the Multilevel Price Determination

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Material Ledger → Material Price Analysis*
Transaction Code	CKM3

2. Enter the following data:

Field	**Data**
Material	ACT-LCD
Plant	6000
Period/year	Current period/current fiscal year
Currency	Company code currency

3. Choose *Prices and inventory values.*
4. Open the category *Consumption* in the overview list, in order to display the process categories *Production* and *Cost center*
5. Check the following entries for the period selected:

Field	**Data**
Period status	Closing posting carried out
Standard price	XXX
Periodic unit price	XXX
Price control	V
Current stock value	XXX
Inv. value (stat.)	XXX

In the lower screen area:

Cumulative inventory	XXX
Consumption	XXX
Production	XXX
Cost center	XXX
Ending inventory	XXX

Note that the price control for the closed posting period has changed.

6. Choose *Closing document*.
7. In the screen *Display Material Ledger Document XXX: Overview* choose *Accounting documents.*

8. In the *List of Documents in Accounting* dialog box, choose the accounting document having the lowest document number.

   The system displays the posting record.Posting is carried out in the closing period.

9. Choose and display the second accounting document in the dialog box *List of Documents in Accounting.*

   You will see that the document posted in the previous period was cancelled with this document in the current period.

10. Choose until the overview tree appears.

11. In the *List of Documents in Accounting* dialog box, choose .

Analyzing the Multilevel Price Determination

Purpose

Multilevel price determination is used to calculate the actual prices of externally procured and in-house materials. The calculation of actual prices can be used to valuate the period-end inventory In addition, the Material Ledger/Actual Costing component provides you with numerous tools which you can use to analyze current prices.

The following scenarios are envisaged for the *Multilevel price determination*:

- Carrying out multilevel price determination and simple analysis
- Analysis for a multilevel price determination with the actual cost component split and integration with Profitability Analysis

In this demonstration you carry out the results analysis for multilevel price determination from the viewpoint of both a product manager and an inventory accountant.

You can find more information about this process under [Page 115].

Prerequisites

To calculate the actual costs at the period end you must have set the material ledger in the relevant controlling area to active, and you must specify that the materials have to be included in the actual costing.

Process Flow

You can find the data for this process under [Page 116].

1. Results Analysis from the Product Manager Viewpoint [Page 117]
2. Results Analysis from the Inventory Accountant Viewpoint [Page 120]

Additional Process Information

IDES Mexico produces and labels CD ROMS containing demonstration versions of your current software. The entire value chain from procurement to distribution is subject to an actual costing for which you use the material ledger and Profitability Analysis.

In the following example the period result is considered from the viewpoint of a variety of user roles:

- The product manager (SAP standard role: SAP_WP_SALES_BUSINESS_ANALYST) is interested in the sales and revenue figures and compares plan, target and actual costs with each other in a contribution margin scheme
- The inventory accountant (SAP standard role: SAP_WP_INVENTORY_ACCOUNTANT) is responsible for inventory quantities and inventory price history. Of particular interest is the process of calculating the actual prices across the entire process chain, including the prices allocated by the cost centers.

Data Used During This Process

Field	Data
Operating concern	IDEA
Controlling area	6000
Plant	6000 6100
Cost center group	H64_530
Material	ACT-DCD ACT-BCD ACT-LCD

Results Analysis from the Product Manager Viewpoint

Use

With the revenue growth for the periods July and August not agreed, the area manager requests a detailed report from you in your capacity as product manager responsible for the CD's.

You compare the plan with the target and actual values.

Procedure

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Profitability Analysis → Information System → Execute Report*
Transaction Code	KE30

The first time you perform profitability analysis you are requested to enter an operating concern.

2. In the *Set Operating Concern* dialog box, enter the following data:

Field	Data
Operating concern	IDEA
Costing-based	Select

3. Choose .
4. In the profitability analysis reporting tree, double-click on the report *IDES 380 Actual Cost Component Split – CM.*
5. Enter the following data:

Field	Data
From period/year	007.2000
To period/year	007.2000

6. Choose .

   The report displays a contribution margin scheme that is divided into the sections variable cost of goods manufactured (CM1), fixed cost of goods manufactured (CM2), and other costs (CM3). You can see the appropriate values for the planned sales quantity (*Plan data* column), the actual quantities valuated with the standard cost estimate and the actual quantity at actual prices.

   The costs for the material components are considerably higher than planned.

7. To understand the reason for this variance, choose .
8. In the dialog box *Choose report,* double-click on the report *Material Price Analysis.*
9. Enter the following data:

Field	Data
Material	ACT-DCD

Plant	6000
Period/year	007.2000
Currency	Company code currency
View	Price determination structure

10. Choose .

    In the *Material Price Analysis* screen you will see that price differences have been posted for the material in the category *Receipts.*

11. Open the category *Receipts.*

    You will notice that the price differences for the most part originate in the external procurement.

12. Choose , until the screen *Execute Profitability Report Actual Cost Component Split – CM* is displayed

    You establish that the costs for salaries and wages are substantially higher than the target values.

13. To understand this variance, choose .
14. In the *Choose report* dialog box, double-click on the report *Cost Centers: Actual/Plan/Variance).*
15. Enter the following data:

Field	**Data**
Controlling area	6000
Fiscal year	2000
From Period	007
To period	007
Plan version	0
Cost center group	H64_530

16. Choose .

    The plan and actual costs of the selected cost center group are displayed.

17. To analyze the values of the individual cost centers, select the individual cost centers.

    You will see that the larger variances originate in the cost center *Recording studio.*

    To display or hide the navigation bar on the screen, choose (*Navigation on/off).*

18. Choose until the overview tree appears.
19. In the dialog box *Exit reports* choose *Yes*.

Result

You now know why contribution margin III for your product has turned out to be so low in comparison to the plan and target values, even though you have purchased more than planned:

the delivered prices of the raw materials are higher than you estimated, and in addition the labor costs in the recording studio are higher than planned.

Results Analysis from the Inventory Accountant Viewpoint

Use

As an inventory accountant you are concerned more with the inventory than revenue. You are, therefore interested in the result of the actual costing which provides you with amongst other things details about the material price history and the inventory value history. In addition to this, you can check if any incorrect entries have been made prior to a closing valuation.

Procedure

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Actual Costing → Edit Costing Run*
Transaction Code	CKMLCP

2. Enter the following data:

Field	**Data**
Costing run	CA 6000
Period	007.2000

3. Choose .
4. Choose *General Data*.

   You will see that the costing run for the plants in Mexico City and Monterrey have been created.

5. Choose *Process.*

   You will see in the *Successful* column in the line *Post closing* that the costing run for all four materials selected has been closed successfully.

6. Choose *Costing results*.

   You can understand the flow steps on the basis of the status messages.

   You can represent the results in various views and hierarchies and also display the material list with filters.

7. To select the costing run, select the following entries in the area *Costing results*:

Field	**Data**
View	Overview: Costing Run
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

   You will note that of the four materials selected, three come from plant 6000 in Mexico and one from plant 6100 in Monterrey.

8. Expand the structure of plant *6000* in the column *Results*.

You will see that one finished product, one semi-finished product and one raw material have been selected in plant 6000.

9. To determine the sequence of the costing run, select the following entries in the area *Costing results*:

Field	Data
View	Overview: Costing Run
Hierarchy	Costing run/level/cycle no.

All of the materials selected for which no postings have been created in the period are assigned level 0. All of the materials selected which do not have multi-level receipts are assigned level 1. All other materials are assigned according to their level in the production process.

In the selected setting you will see that of the four materials, two are assigned to level 1, one is assigned to level 2 and one to level 3. Postings are created for all materials which are intended for the actual costing (material price determination *3*)

Moreover, you will notice that two materials do not have multilevel receipts, meaning no multilevel price determination is necessary, recogizable by the minus sign in column *P* (multilevel price determination).

10. To call up single-level price determination, select the following entries in the area *Costing results*:

Field	Data
View	Single-level price determination
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

Single-level price determination is carried out for all materials selected and is a prerequisite for both the mulitlevel price determination and the closing entries.

You can see that single-level price determination has been carried out successfully (which you can recognize by the green traffic light or the green column).

11. To call up multilevel price determination, select the following entries in the area *Costing results*:

Field	Data
View	Multilevel price determination
Hierarchy	Costing run/level/cycle no.

You see that the multilevel price determination has been carried out successfully for the materials for levels 2 and 3.

12. Change the hierarchy in the area *Costing results* as follows:

Field	Data
View	Multilevel price determination
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

You see that in both plants respectively one material has been costed multi-level.

13. To check the closing entry, select the following entries in the area *Costing results*:

Field	Data
View	Closing entry
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

You will see that the closing entry for all of the materials selected has been performed successfully.

14. To display the results in detail, select the following entries in the area *Costing results*:

Field	Data
View	Overview: Costing Run
Hierarchy	CstngRun/plant/mat. type/val. class/origin group

15. Select costing run CA 6000 and choose → *Display material list with filter* → *Materials with goods movements*.

    You see a list of all the appropriate materials. This is a further detailed display of the results you have already analyzed.

16. Choose → *Select layout*.

17. In the dialog box *Layout choose* choose *Price analysis with material short text*.

    You receive the variances from each material between the preliminary valuation price and the periodic unit price. The list is sorted according to the percentage variances. You can now see, at a glance, the materials for which you need to carry out a more detailed price analysis.

    The material with the greatest percentage variance is in this case the labels for the CD's, so you must now carry out a detailed analysis.

18. Double-click on the appropriate material.

    The *Material price analysis* screen appears.

    You will see in the *Price* column that the price of both the period beginning inventory and that of the receipts is higher than the planned price.

19. Open the structure *Receipts*, then process category *Purchase order* and the procurement alternative *Fabricas Mixtli.*

    You will see that the goods receipt was posted without price differences and conclude that the price used in the purchase order was the preliminary valuation price.

    In addition you will notice that the price differences arise upon receipt of the invoice, meaning the vendor has entered a higher amount in the invoice than agreed in the purchase order.

20. Choose until the *Material price analysis* screen appears.

    The material with the second highest variances is the completed demo CD's.

21. To carry out a price analysis, double-click on this material.

    You will notice that the variances for the most part originate in the external procurement. However, since you are interested in a more detailed analysis, you also examine the causes of the variances for production.

22. Open the structure *Receipts*, then process category *Production* and the procurement alternative *Production Version 1*.

    You see three documents:

    - The goods receipt with which the finished article was posted from production to the warehouse. No price differences have arisen here as the material was valuated with the preliminary valuation price within the period.
    - The order settlement has produced a small price difference; you discuss this with the manager of the cost center responsible.
    - Multilevel price determination has generated the third document (receipts from lower levels) and displays a larger price difference.

23. Double-click to select this document:

    You will see that the price determination has settled price differences for the material components, the cost centers and Activity-Based Costing to the demo CD's. It is clear that the two items *Blank CD* (material component) and *Recording CD* (activity type) are responsible for the greater part of the price differences.

    For the manufacture of 800 demo CD's, 900 blanks have been used.

24. To display the material price analysis of the blank, double-click on material *ACT_BCD*.
25. Open the structure *Receipts,* then the process category *Purchase order*.

    You will see that the cause of the price differences is the delivered price for purchase order with vendor *Productos Argentinos*.

26. Choose , until you return to the document for multilevel price determination.

    To manufacture the 800 demo CD's required a further 8.5 hours of activity type *Recording CD.* You recognise differences that have been allocated to the demo CD's through the variances between the actual price and the plan price.

27. Choose until the overview tree appears.

Result

This leads you to conclude that the price of the demo CD's is higher than planned due to higher costs for the blank CD's and higher activity prices for recording them.

Easy Cost Planning and Execution Services for an IT Project

Purpose

You company wishes to implement new software. You are going to use the project system for this. Cost control is of prime importance. For simple and efficient cost planning you are using the Easy Cost Planning costing method. Your company has already implemented several projects of this kind, and consequently you are able to refer back to a standard project for the structure of the project and planning forms for the calculation of the costs. As the project progresses you use the Execution Services direct to cost various subsequent processes, such as purchase requisitions.

You can find a description of how you create planning forms in the process Ad hoc cost estimate with Easy Cost Planning [Page 139].

You can find a detailed description of the costing methods *Easy Cost Planning* and *Execution Services* in the standard SAP documentation under *Accounting* → *Controlling* → *Product Cost Controlling* → *Product Cost Planning*.

Easy Cost Planning and Execution Services [Ext.]

Process Flow

You can find the data for this process under [Page 126]

1. Using the Project Builder create the project with the template for the standard project I/0002. Because cost control is of prime importance in this procedure, you map your project via a work breakdown structure without activities.

   Creating a Project with Template [Page 127]

2. You plan the costs of your project by using predefined planning forms. In the planning forms you specify the cost relevant factors (characteristics) and the conversion of these into the costing items of the unit costing. As planner you define the characteristics based on your project-specific data, for example number of licenses, and the system determines the quantities and prices of the costing items. This does not require a detailed knowledge of unit costing.

   Planning Costs using Easy Cost Planning [Page 130]

3. As planning proceeds you receive additional information about the project and make the planning complete.

   Changing Cost Planning [Page 132]

4. The planning is accepted and you release parts of the project for execution.

   Releasing the Project [Page 134]

5. In the further course of the project you trigger various subsequent processes (such as internal activity allocation) directly from the planning function.

   Carrying out Execution Services [Page 135]

6. To gain an overview of the cost process check the plan/actual position.

   Evaluating Costs in Reporting [Page 138]

Data Used During This Process

Field	Data	Description
Controlling Area	1000	CO Europe
Company Code	1000	IDES AG
Plant	1300	Frankfurt
Standard Project	I-0002	IT Project Nellos
Planning Form	ZPS000	Nellos
Planning Form	ZPS001	IT: Concept
Planning Form	ZPS002	IT: Implementation
Planning Form	ZPS003	IT: Team Preparation
Planning Form	ZPS004	IT: Prep. With External Consultants

Creating a Project with Template

Use

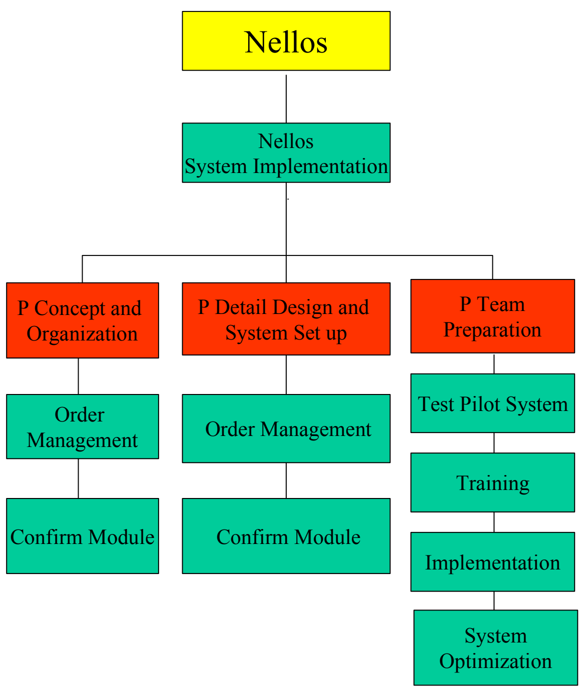
The organizational structure of the project results from the use of the work breakdown structure (WBS). You have already created a standard template during the initial system implementation phase, which you can use when you create the project using the Project Builder. The project is structured only by using WBS elements.

The Project Builder offers you a simple introduction to using the Project System and integrates all of the specific functions required to process the project. Not only can you maintain all of the data for a project structure in the Project Builder, you can also carry out Easy Cost Planning and trigger the Execution Services.

You can find a detailed description of the functions in the standard documentation for the Project System via *Structures* → *Project Builder*.

Project Builder [Ext.]

The following graphic shows you the structure of the project "Nellos". The later cost planning is carried out for those WBS elements indicated as a planning element (P).



Prerequisites

You have maintained the standard project I/0002 in your system.

Procedure

1. Call up the transaction as follows:

Menu path	*Accounting → Project System → Project → Project Builder*
Transaction code	CJ20N

On first accessing the Project Builder a dialog window appears giving you information about the subsequent user-specific settings that need to be made.

2. To maintain user-specific settings, choose ✔ in the dialog box.

   The dialog box *Project Builder: User-specific options* appears. Here you can specify both the general settings and also which project elements you will need as templates, for example *Standard templates*.

   You can change the user-defined settings at any time by choosing *Settings → Options*.

3. If you want to preview the last project you edited in the screen area *Structure tree,* select *Preview last project* and choose ✔.

   You access the Project Builder. The screen is divided into three areas: In the top left area you are given an overview of the structure of the project you have created (in the following structure tree). Beneath this is the worklist and template area. The actual work area is on the right side of the screen.

4. Choose in the screen area Structure Tree → *Copy Project*.
5. Enter the following data:

Field	Data
Project definition	I/00XX (where XX stands for any two figure number)
Project profile	Cost projects
Std. proj. def.	I/0002

6. Choose ✔.

   The system creates the project and displays the structure in the screen area *Structure tree.* In the work area the system opens the detail screen for the project definition.

7. Under *Identification and view selection* in the work area add the project number I/00XX to the entry *Nellos system implementation*.
8. In the *Basic data* tab page, enter the following data:

Field	Data
Start date	(The current date)
Finish date	The current date + 3 Months

9. In the structure tree click on the WBS element *Concept and Organization*

   The system displays the detail screen in the work area. The WBS element is flagged as a planning element and an account assignment element (operative indicators).

10. Choose and select *Yes* for the warning message displayed.

Result

The system creates the project. In the Project Builder you can find the project in the screen area *Worklist* under *Last projects processed.* In the following you plan the costs.

Planning Costs using Easy Cost Planning [Page 130]

Planning Costs using Easy Cost Planning

Use

As project leader you decide to plan your costs using Easy Cost Planning. To make the work easier you include the relevant planning form in your worklist. You then assign the corresponding planning forms to the planning elements of your project and define the characteristics.

Procedure

1. Call up your project in the Project Builder by double-clicking on Project I/00XX displayed in the structure tree as a preview.
2. Choose .

   A dialog box appears with the predefined costing variant *PS06.*
3. Choose *Create Cost Estimate*.

   The screen *Easy Cost Planning* appears. The costing structure and the worklist are displayed in the left hand side of the screen. The system has transferred the project structure to the costing structure. The planning elements are indicated by .

   The right-hand side of the screen is the work area. In the lower screen area you find the item overview.
4. If the item overview is not displayed, choose *Show/Hide Item View*.
5. If the worklist in the lower left screen area is not displayed, choose .

Including Planning Forms in the Worklist

1. In the screen area *Worklists*, choose next to the directory *My Planning Templates*.
2. Enter `ZPS00*` as a search term in the field *Costing model.*
3. Choose .
4. Select planning forms ZPS001 to ZPS003 and choose .

   The system transfers the planning forms to the screen area *Worklists*. If necessary change the width of the column to see the entire description.

Assigning the Planning Forms to the Project Elements

1. In the screen area *Costing Structure* select the WBS element   *Concept and Organization*.
2. Click on the planning form *IT:Concept* in the screen area *Worklists.*

   The system displays the entry screen with the characteristics for the planning form in the work area.
3. Enter the following data:

Field	Data
Working Hours	100

Additional Costs	2000

4. Choose *Confirm.*

   Depending on the data you entered the system determines the costing items using the planning form and displays them in the costing structure.

5. If you would like an overview of the meaning of the symbol legends displayed in the costing structure, choose in the application toolbar.

6. Similarly, assign planning forms to the following WBS elements:

WBS element	Planning form
Detailed Design and System Set Up	IT: Implementation
Team Preparation	IT: Preparation

7. Enter the following data:

In the planning form entry screen	Field	Data
IT: Implementation	Internal Working Hours	130
	Number of Licenses	50
IT: Team preparation	Internal Working Hours	90

8. Choose *Confirm.*

9. If you want to see the aggregate costs on the project, either change the column width as necessary in the screen area *Costing structure,* or increase the screen area.

10. Choose .

    You access the Project Builder.

11. Choose .

Result

You have planned the project costs. Once you have received detailed information about the project, change the cost planning.

Changing Cost Planning [Page 132]

Changing Cost Planning

Use

You supplement the costing for the WBS element *Detailed Design and System Set Up* by two further costing items and change the values in the planning form entry screen *IT: Team Preparation.*

Procedure

1. Call up your project in the Project Builder by double-clicking on Project I/00XX displayed in the structure area as a preview.
2. Choose .
3. In the costing structure select the WBS element *Detailed Design and System Set Up*.

   The system displays the entry screen of the assigned planning form in the work area.
4. If the item overview is not displayed, choose *Show/Hide Item View*.
5. To supplement the cost estimate choose twice in the item overview.
6. Enter the following data:

Item cat.	Resource	Plant/Activity type	Quantity
E	4295	1463	10
M	B-1000	1000	10

7. Choose *Confirm*.

   You have supplemented the cost estimate by one internal activity (manager hours) and one material item.
8. In the costing structure select the WBS element *Team Preparation*.
9. Enter the following data:

Field	Data
Internal Working Hours	120

10. Choose *Confirm*.

    In the planning form you have a resource restriction of 100 hours of internal personnel time. Because you have scheduled more than 100 hours personnel time the system inserts an additional planning form in the costing structure. The items in planning form *IT: Team preparation* are removed from the costing structure.
11. Navigate in the screen area *Costing Structure* to the end of the structure.
12. Choose the *IT:Prep. With Ext. Consultants* node.

    In the work area the planning form entry screen is displayed.
13. Enter the following data:

Field	Data

External Consultant Hours	50
Internal Working Hours	70

14. Choose *Confirm*.

    The system transfers the costing items just determined to the structure.

15. Choose .

    You access the Project Builder.

16. Choose .

Result

You have completed your planning and can release the project for implementation.

Releasing the Project [Page 134]

Releasing the Project

Use

Before you can post actual costs to the WBS elements you have to set the system status *Released.*

Procedure

1. Call up your project in the Project Builder by double-clicking on Project I/00XX displayed in the structure area as a preview.
2. Click on the project definition in the screen area structure tree.
3. Choose *Edit* → *Status* → *Release.*

   In the work area on the *Basic Data* tab page the system displays the system status *REL Released*. By releasing the project definition you also release all of the subordinate project elements.
4. Choose .

Result

All project elements have been released and you can begin with the implementation of the project. You use the Execution Services for this purpose.

Carrying out Execution Services [Page 135]

Carrying out Execution Services

Use

As the project progresses, you create actual costs for the costing items planned using Easy Cost Planning.

To make your work easier you trigger the required follow-up actions for the cost estimate via Execution Services direct. The system automatically selects the appropriate costing items with the required data. You normally only need to confirm the posting.

In this process you carry out the following Execution Services:

- Activity allocation for the internal personnel hours worked
- Goods issue for the office supplies taken from the warehouse
- Purchase requisition for the software licenses

Prerequisites

You have carried out cost planning using Easy Cost Planning and released the project for the data to be posted.

Procedure

1. Call up your project in the Project Builder by double-clicking on Project I/00XX displayed in the structure area as a preview.
2. Choose .

    The system displays the costing structure for the project.

3. If the item overview is not displayed, choose *Show/Hide Item View*.
4. Choose *Show Execution Services.*

    In the upper part of the screen you will see the checkbox *Execution Service*.

Carrying out Internal Activity Allocation

1. In the costing structure select the WBS element *Concept and Organization*.

    The system displays the costing items.

2. Select the Execution Service *Internal Activity Allocation*.

    The system selects all of the costing items of category E (internal activity) and P (process costs manually), and displays them in the item area.

3. Choose .
4. Choose *Post*.

Posting Goods Issue

1. Select the Execution Service *Goods Issue*.

    The system selects all costing items of category M (material items).

2. To supplement the posting data choose → *Layout* in the item overview.
3. Select Layout *1SAP02* and then choose .
4. Enter storage location 0001 for the item.
5. Select the item and choose *Post*.

Create Purchase Requisition

1. In the costing structure select the WBS element *Concept and Organization*.
2. Select the Execution Service *Purchase Requisition*.

   The system selects all costing items of the following categories:

   – M (material)

   – F (external activity)

   – N (service)

   – V (variable items)

   – L (subcontracting)
3. To supplement the posting data choose → *Layout* in the work area.
4. Select Layout *1SAP05 Purchase Rquisition – Variable Item* and then choose .
5. For the item *Additional Costs Concept* enter the following data:

Field	Data
Plant	1300
Delivery date	14 days from today's date
Purchasing organization	1000
Material group	014
Purchasing group (PGr)	001

6. Select this item and choose *Post.*

   The document is posted.
7. To display the document overview, choose in the upper right-hand of the work area.
8. To refresh the display, choose *Refresh*.

   The document for the purchase requisition is displayed.
9. Choose , until the overview tree appears.

   You do not need to save again. The system has already posted the document.

Result

The activity allocation, the goods issue and the purchase requisition are posted and the actual costs or the commitment are updated on the project. Check the costs in reporting.

Evaluating Costs in Reporting [Page 138]

Evaluating Costs in Reporting

Use

You check the posting by cost element of the costs in the information system.

Procedure

1. Call up the transaction as follows:

Menu path	From the *Project System* node, choose *Information System* → *Financials* → *Costs* → *Plan-Based* → *By Cost Element* → *Actual/Commitment/Total/Plan in CO Area Currency*
Transaction code	S_ALR_87013542

2. Enter the DB profile 000000000001 if necessary.
3. Enter the following data:

Field	**Data**
Project	I/00##
Plan Version	0
To Fiscal Year	The Current Year + One Year

4. Choose .

   In the report the aggregated plan costs and the commitments and actual costs arising from the Execution Services are displayed.

5. In the structure tree click on the WBS element *Concept and Organization.*
6. In the report place the cursor on the column *Actual* and choose .

   You access the overview of the actual line items.

7. To display the document, select it and choose .
8. To leave the report keep choosing and choose *Yes* each time in the dialog box.

Ad Hoc Cost Estimate using Easy Cost Planning

Purpose

For a quick cost simulation of frequently used planning objects you can use an ad hoc cost estimate. This kind of cost estimate does not need a reference object. The basis of the cost estimate is the planning forms of Easy Cost Planning. You can create your own planning forms to suit your requirements.

You can find a detailed description of Easy Cost Planning in the standard SAP documentation under *Accounting* → *Controlling* → *Product Cost Controlling* → *Product Cost Planning*.

Easy Cost Planning and Execution Services [Ext.]

In addition to ad hoc cost estimates, you can use Easy Cost Planning to plan the costs of the following objects:

- Internal orders
- Projects
- Investment measures

You can use the planning forms created in this process for the cost planning of these objects.

See also:

Easy Cost Planning and Execution Services for an IT Project [Page 124]

Process Flow

You can find the data for this process under ? [Page 140]

1. The costs are to be calculated for the initial work preparing your team of consultants. To do this, you in your capacity as the cost accountant create a suitable planning form.

   Create New Planning Form [Page 141]

2. Because as yet no project, internal order or investment measure has been created in the system at the cost planning stage for the team preparation, you simulate the planned costs of your team of consultants in the ad hoc cost estimate.

   Creating Ad Hoc Cost Estimates [Page 145]

Data for this Example

Field	Data	Description
Controlling Area	1000	CO Europe
Company Code	1000	IDES AG
Plant	1300	Frankfurt
Planning Form	ZPS004	IT: With External Consultants

Creating a New Planning Form

Use

To calculate the costs of getting your team ready for the job you create a planning form. Such costs depend on the planned consultant hours. To ensure you are adequately resourced, you specify that for more than 100 consultant hours external employees are to be used for the work. The additional costs incurred are also to be included in the cost estimate.

You assign characteristics to the planning form. You specify in the derivation rules (template):

- Which resources are to be included for the cost estimate
- How the characteristics affect the resources required and their quantities
- The conditions for including the items

Procedure

1. Call up the transaction as follows:

Menu path	Via the project system: *Logistics* → *Project System* → *Basic Data* → *Templates* → *Models for Easy Cost Planning*. Via Product Cost Planning: *Accounting* → *Controlling* → *Product Cost Controlling* → *Product Cost Planning* → *Easy Cost Planning & Execution Services* → *Edit Ad Hoc Cost Estimate*.
Transaction code	CKCM

2. Enter controlling area 1000 as necessary and choose ✔.

   The screen *Easy Cost Planning: Model* appears. The left-hand side contains the *Worklists.* The right-hand side of the screen is the work area for planning form maintenance.

3. Choose 🗋 in the work area.

   The dialog box *Create Model* appears.

4. Enter the following data:

Field	Data
Costing Model	ZXXX (where XXX stands for any three figure number)
Name	XXX IT: team preparation

5. Choose ✔.

   The system displays the various steps in model maintenance in the work area. You choose the process step *Assign characteristics to the model*.

   In the lower work area you will see the list for maintaining characteristics.

Assigning Characteristics

1. Enter the following data:

Field	Data
Characteristic Name	PS_PERS_HOURS

2. Choose .

   Because the characteristic has already been maintained, the system transfers the characteristic data.

Creating Characteristics

1. Enter the following data:

Field	Data
Characteristic Name	Z_XXX_Zusatz

2. Choose .
3. Choose *Yes.*

   Because the characteristic has not yet been maintained in the system, the characteristics maintenance screen appears.

4. In the *Basic data* tab page, enter the following data:

Field	Data
Description	Additional costs (Euro)
Format: Data Type	 Numeric format
No of Chars	8
Decimal places	2

5. Choose .

   You return to the screen *Easy Cost Planning: Model*.

Defining Derivation Rules

1. Click on the node *Define the derivation rules (template)*.

   The dialog box *Selection of Reference Object* appears. Select the reference object *All objects.* The planning form can be used for projects, internal orders, investment measures and ad hoc cost estimates.

2. Choose .

   The *Create Template* screen appears.

3. In the first row, enter the following data:

Field	Data
Type	Cost Center/Activity Type (use poss. entries)

Name	Internal Consulting Hours
Object	Using possible entries: Cost Center: 4120 Activity Type: 1412 Name DV Service Select by double-clicking on the entry in the results list for the year 2000
Quantity	PS_PERS_HOURS

4. In the second row enter the following data:

Field	Data
Type	Variable Item (use poss. entries)
Name	Additional Costs
Object	Using possible entries: Cost Element: 466000
Quantity	1
Activation	Active (use poss. entries)
Price	Z_XXX_ZUSATZ

5. In the third row, enter the following data:

Field	Data
Type	Costing Model (use poss. entries)
Name	IT: With External Consultants
Object	Using possible entries: Costing Model: ZPS004

The variable costs are included in the cost estimate in every case.

6. Choose .

Setting Conditions

1. Double-click on the *Activation* column in the row *Internal consulting hours*

   You access the method editor in which you specify the conditions for including an item in the cost estimate.

2. Choose *Insert condition*.

   The *Create Template Z_XXX*. screen appears.

3. Enter the following data:

Field	Data
Comparison operand 1	PS_PERS_HOURS
Comparison	≤ Less

Comparison operand 2	100

4. Choose *Confirm*.
5. Choose .
6. Double-click in the row *IT: With External Consultants* in the column *Activation*, and then choose *Insert condition* in the method editor.
7. Enter the following data:

Field	**Data**
Comparison operand 1	PS_PERS_HOURS
Comparison	> Greater
Comparison operand 2	100

8. Choose *Confirm*.
9. Choose .
10. To save the derivation rules, choose .
11. Choose .
12. To save the planning form, choose .

Creating Ad Hoc Cost Estimates

Use

As the person responsible for costs you simulate the costs of preparing to use your team of consultants using the ad hoc cost estimate. For this you use the planning form ZXXX that you created in Controlling.

Procedure

1. Call up the transaction as follows:

Menu Path	*Accounting → Controlling → Product Cost-Controlling → Product Cost Planning → Easy Cost Planning & Execution Services → Edit Ad hoc Cost Estimate*
Transaction Code	CKECP

2. Enter the controlling area 1000 if necessary.

   The screen *Ad Hoc Cost Estimate* appears.

3. Enter a suitable text in the field *Description.*
4. In the *Create with planning form* tab page, enter the following data:

Field	**Data**
With Planning Forms	ZXXX the planning form that you created

5. In the *Additional data* tab page, enter the following data:

Field	**Data**
Costing Variant	PADH
Company Code	1000
Plant	1300

6. Choose *Create*.

   The screen *Ad Hoc Cost Estimate: Change* appears. On the left-hand side of the screen the costing structure is displayed, and on the right side the entry screen for the planning form.

7. Enter the following data:

Field	**Data**
Internal working hours	110
Additional cost (Euro)	5000

8. Choose *Confirm*.

   Depending on the data you entered the system determines the costing items and inserts them in the costing structure.

   As you have planned more than 100 hours labor time, the system inserts the node ZPS004 *IT: With External Consultants* in the costing structure and not the internal activity item. You have not defined any conditions in the planning form for the variable costing item additional costs and the item is activated in each case.

9. In the costing structure click on the planning form *With External Consultants*.

   In the work area the system displays the entry screen for the planning form IT: *With External Consultants.*

10. Enter the following data:

Field	Data
External Consultant Hours	50
Internal Working Hours	60

11. Choose *Confirm.*

    The system determines the costing items and transfers these to the structure.

12. If you would like an overview of the meaning of the symbol legends displayed in the costing structure, choose .

13. If you want to see the total costs in the screen area *Costing structure*, either change the column width as appropriate or increase the screen area.

14. To show the item overview in the lower half of the work area, choose *Show/hide item view*.

15. Choose .

    The ad hoc cost estimate is saved.